

THINKIN GREENER – AN ECO-FRIENDLY AFFILIATE VENTURE



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THESIS ACCEPTANCE CERTIFICATE

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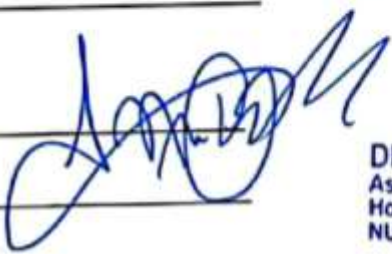
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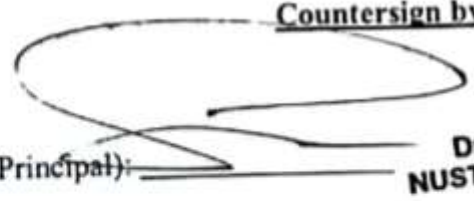
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Dedication

I dedicate this report to my parents who sacrificed so much for the sake of my future. I hope this achievement can be a small token of appreciation for all they have done for me.

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This project would have certainly not been possible without the constant support and close supervision of my project supervisor Dr. Fareesa Malik. Throughout the course of this project, she has continuously provided guidance which set this project up for success.

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Abstract

With the increase in the eco-conscious community over the past years as well as the Coronavirus pandemic, there has been an influx of online traffic researching sustainable products worldwide. Among those have been individuals who seek an environmentally friendly lifestyle but cannot afford to spend a significant amount of money on high-end solutions such as solar panels and electric cars. Thinkin Greener is a platform that planned to target this market by offering a guide for customers to find, research, and buy economically sustainable products. As an online resource, it offers a solution for consumers looking for budget-friendly options and guides to achieve an eco-friendly living. As an affiliate, it also offers its audience reviews and affiliate links for the best products in a given sustainable niche, thereby helping customers find (and purchase) the right product for their needs. The report will discuss the various lifecycle avenues of this platform, such as its purpose, accomplishments, and plans. It will also discuss market analysis, as well as the challenges that it has faced since its inception.

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As per project requirements, an industry expert for this project has also been selected, who agreed to supervise and offer consultancy during the project.

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INTRODUCTION

The Planbureau voor de Leefomgeving (PBL) Netherlands Environmental Assessment Agency (2020) reported that there has been a major increase in greenhouse gas emissions over the past decade, with approximately a 2% increase every single year, peaking in 2018. The dramatic situation had also been highlighted at the United Nations Climate Action Summit in 2019, where several countries' representatives highlighted how the increasingly concerning climate change is depleting Earth's natural resources, causing major natural disasters such as flooding and melting of ice caps along the polar regions (League, et al. 2019). Due to these increasingly alarming rates, global effort is being made to curb climate change with environmentally friendly alternatives such as sustainable energy-powered homes and electric vehicles. However, these alternatives are not accessible and affordable by everyone, and the recent Coronavirus pandemic has only reduced their affordability among the masses. The Coronavirus pandemic has also caused many businesses to go online due to the increased amount of people opting for digital means of shopping than physically entering stores. Taiwan reported an impressive 18 percent online sales increase since the beginning of the Pandemic (Chang and Meyerhoefer, 2020).

With the increase in online shopping, there has also been an increase in online product research consequently. Consumers are actively searching for product reviews, as well as the best products within their relevant niche to determine whether a product is worth the price. With the increase in online traffic for eco-friendly products and lifestyles, there exists a need for an idea that was set with the purpose to exploit this specific market niche. Based on that need, Thinkin Greener was created to offer users a platform to help them transition to a sustainable lifestyle

without having to spend an enormous amount of money. Since its inception, Thinkin Greener has attracted thousands in online traffic (refer to *figure 4.3*) and has generated several affiliate sales of sustainable products such as recycled printing paper, eco-friendly cleaning products, and sustainable holiday cards, etc., thereby helping consumers switch to a more environmentally friendly lifestyle (Figure B1; see Appendix B).



Figure 1: Thinkin Greener logo, retrieved from <https://www.thinkingreener.com>

Note. The color scheme for the logo is different for black and white backgrounds. Green (Hex: #c4f943) remains common in both, whereas the color of the other letters is white (Hex: #ffffff) for a black background and black (Hex: #000000) for white background.

As of now, Thinkin Greener continues to grow as it increases its human resource, as well as incorporates various AI-based tools to generate more traffic, and consequently, more sales. It continues to seek further partnerships from environmental organizations and organic stores to exploit the relatively untapped sustainable market in Pakistan to increase awareness among the community and act as a how-to guide to help consumers take their first step towards a sustainable lifestyle. To define the project scope in this report, three (3) milestones have been set along with an overall project outcome. Milestone one (1) focuses on the creation of the platform and the addition of initial content to begin traffic generation. This includes setting up hosting,

applying for partnerships with affiliate networks, and configuring monitoring tools. Milestone two (2) concerns optimization and content funnel creation, which includes image compression, content refinement, and the introduction of Artificial Intelligence (AI) based content optimizers. Finally, milestone three (3) focuses on consistent affiliate sale generation and network expansion within Pakistan. This concerned contacting local environmental organizations and sustainability-focused retailers to discuss potential affiliate partnerships and generating high-converting leads. The overall project outcome concentrates on reaching two specific targets; traffic on the platform reaching 2000 visitors per month (VPM) and monthly affiliate sales amounting to at least 500 US Dollars (USD). These are categorically mentioned in further detail in *chapter 7: Milestones and Future Plans*.

CHAPTER 1: LITERATURE REVIEW

1.1 AFFILIATE MARKETING

1.1.1 Affiliate Marketing Overview

Affiliate marketing is defined as a marketing method whereby an affiliate and a manufacturer develop a commission-based partnership, where the affiliate earns a percentage of the manufacturer's income every time a sale is made from his/her channel, hence making this high performance-based (Dwivedi, Yogesh, Rana, and Alryalat, 2017). Taking on a classical view of Duffy's (2005) analysis of affiliate marketing's impact on e-commerce, affiliate marketing can only be successful if the relationship between the manufacturer and the affiliate is one where both parties benefit from the sale. By 2017, only eighteen recognized studies have been published on affiliate marketing, which makes it a relatively immature field in literary terms (Dwivedi, Yogesh, Rana, and Alryalat, 2017). However, the field is considered very lucrative and very profitable for both the affiliate and the manufacturer compared to the investment made (Kaur, 2018). Duffy (2005) provides an overview of the affiliate marketing cycle by providing an example of a catalog salesman, who is offered the partnership of an external marketer. The external marketer will handle all expenses that he/she will incur during the marketing of the product, and in exchange will earn an agreed commission on each sale that is made through him/her, thus making them "affiliated" with the catalog salesman. The example by the author signifies how affiliate marketing proves beneficial for both the manufacturer (who does not need to take care of the expenses) and the external marketer (who can gain profits without having their own product to sell).

1.1.2 Affiliate Marketing and Industry Verticals (Study)

Aleksandrovna's (2021) analysis of Aviasales Data (A major Russian ticketing agency for travel), addressed two major questions in the affiliate marketing domain; what types of websites pursue creating affiliate programs for potential marketers, as well as any patterns that may link both the affiliate marketing agency/individual and the industry vertical of the firm offering the affiliate program. Through the analysis of Data clusters among sales of hotel rooms and flights via affiliates in comparison to sales made directly through the website, the author was able to determine three distinct characteristics that determined the type of websites requiring affiliate programs and the pattern that linked affiliate marketers within an industry vertical:

- The competition among the industry vertical
- The impact of technology on the industry
- Need for external information among consumers of the vertical

The research held significance to this project, as it helped solidify the need for affiliate ventures within the eco-friendly vertical due to (A) increased competition within the vertical over recent years, (B) technology playing a vital role as consumers turn towards online shopping platforms and (C) the need for consumers to research external resources on products and services that are newer and unknown to them.

1.1.3 Affiliate Classifications

According to the Affiliate Marketing Handbook published by the Interactive Advertising Bureau (IAB) (2016), affiliate marketing can be segregated into several classifications based on the ways used to communicate to their target audience. These include:

- Content-based websites: Using written content to engage customers by providing information on the products and services affiliates are promoting

- Reward-based websites: Offer a bonus reward for completing an action offered by the affiliate, this may be used in conjunction with other mediums
- Emails/Newsletters: Use an emailing list or newsletters to target/engage the audience towards the affiliate link.
- Comparison/Product Reviews: Provide a comparison of multiple products or services within a niche and offer an affiliate link for the superior product and/or other products in comparison.
- Pay-per-click (PPC) websites: Redirect users directly to a landing page that displays the affiliate offer. Usually used in conjunction with other mediums
- Social media affiliates: Utilize various social media platforms to engage the target audience instead of a dedicated website and leverage social media tools to advertise offers to audiences within a given niche.

Although the above resource does provide a general overview of the multiple mediums that affiliates can utilize, it does not provide an in-depth understanding of how affiliates may use multiple platforms simultaneously to engage the audience. It is also noteworthy to mention that the approaches mentioned above are determined through the IAB authors' own experiences and are not deduced through concrete empirical evidence.

1.1.4 Affiliate marketing model(s) and value chain

Bandyopadhyay, Wolfe, and Kini (2009) describe three different types of affiliate marketing models that are often used by affiliates in different industries. These types are:

- Exposure based model
- Revenue-based model
- Hybrid model

Exposure-based models are adopted by affiliates to target an audience toward a specific action or a specific piece of content that needs to be viewed. Examples of adoptions include PPC (refer to section *1.1.3 Affiliate Classifications*), Pay per email, and Cost per Click (CPC). Merchants who prefer affiliate programs focusing on exposure-based models are often associated with a reduction in costs, as the cost to bring a lead towards a specific action is often lower than the cost incurred when a sale is made through the affiliate. Revenue-based models primarily focus on providing sales through the affiliate. These models are categorized into three implementations; Sales percentage, Flat referral, and Pay-per-lead (PPL). The first implementation focuses on providing an agreed-upon percentage of the sale price as a commission to the affiliate, whereas the latter two focus on offering a fixed commission rate for each sale made, regardless of the price of the product or service sold. However, the PPC model does not purely associate revenue with the sale made, but rather commissions are made when the affiliate directs the customer to the sale page of the merchant. The hybrid model is defined by the authors as an amalgamation of the revenue-based model and the exposure-based model. However, due to the high costs incurred by the merchant (paying commissions both for exposure as well as sales), and the need for an increased effort by the affiliate to use two models together, the hybrid model is often not adopted by most parties.

Fox and Wareham (2010) describe the affiliate marketing value chain as consisting of 6 different actors, three of which remain at the core, whereas the other three are optional, and dependent on the business running the affiliate program.

Table 1.1: Affiliate marketing value chain, as described by Fox and Wareham (2010)

Name	Roles
Merchant	<ul style="list-style-type: none"> ● Create the affiliate program ● Monitor performances ● Create ads ● Set rules for affiliates and the overall program ● Decide whether to outsource certain roles to another agency or network
Ad Agency*	<ul style="list-style-type: none"> ● Create ads on behalf of the merchant ● Share ads with the affiliate network or merchant ● Monitor ad performance
Affiliate Networks*	<ul style="list-style-type: none"> ● Facilitate merchant with affiliate models ● Pay affiliates on behalf of the merchant ● Monitor affiliate programs and affiliates ● Generate a ruleset for the affiliate program (If requested by the merchant) ● Handle all communication across the value chain
Cost-per-Action (CPA) Networks*	<ul style="list-style-type: none"> ● Perform a subset of duties as the affiliate network at a lower cost ● Rely on an action taken by the consumer rather than a sale created through the affiliate
Affiliates	<ul style="list-style-type: none"> ● Promote the merchant through various campaigns to reach a wide audience ● May use various mediums (Refer to section 1.1.3 <i>Affiliate Classifications</i>) ● Work within a specific niche, and are compensated purely on performance
Customers	<ul style="list-style-type: none"> ● End consumer or target market for the affiliates and merchants

Note. Names marked with (*) are optional, and may or may not exist within the value chain of some affiliate marketing programs.

Consumer behavior for different implementations of affiliate marketing has been well laid out by the analysis made by Olbrich, Bormann, and Hundt (2019). Through the study of data from the affiliate marketing campaign provided by a merchant within the education sector, the

authors analyzed the “Click-path” of a consumer from two different sources; advertising or PPC, and direct text links (also associated with content-based affiliate marketing). The goal of the research was to compare the contribution of each of the two implementations toward the lead made through the affiliate, and how many of those leads were converted into sales. The results showed that text links were able to provide a significant contribution, whereas results from the ad-based campaign remained non-significant (n.s). There was also a strong correlation between the leads being brought in by the affiliates, suggesting that the leads brought in by the affiliates are often high converting, indicating profitability for both the merchant and the affiliate. The study of models by Bandyopadhyay, Wolfe, and Kini (2009) and the analysis conducted by Olbrich, Bormann, and Hundt (2019) proved significant, as it allowed an understanding of various models on offer that could be implemented for the affiliate venture. The analysis helped narrow down the affiliate classification (refer to section *1.1.3 Affiliate classifications*) suitable for this project, whereas the affiliate models offered insights into the workflow and profitability of each approach.

1.2 IMPACT OF COVID-19 ON BUSINESSES

The Coronavirus pandemic has caused immense damage to businesses, both large-scale and small-scale. The dramatic change in consumer behavior from physically spending money on luxuries to transitioning to moving out for necessities only (Chronopoulos, Marcel, and John, 2020) has caused a major blow to high-end stores worldwide. Even in developing countries such as Iraq, there was a significant shift in consumers towards online modes of shopping; there has been a major decline in physical visiting stores for products (Ali, 2020). In countries that are already technologically advanced such as China and Malaysia, there has been a major influx of

online traffic for product research and shopping in 2020, as it was considered the only possible means through which the population may be able to survive (Hasanat, Hoque, Shikha, Anwar, Hamid, and Tat, 2020). Literature, therefore, suggests that online traffic has risen as a consequence of the pandemic, as more people begin to find solutions for their needs online than physically visit stores, thereby increasing demand for product and service information to be available on the web.

1.3 TRENDS IN SHOPPING FOR ECO-FRIENDLY PRODUCTS

One of the first focused studies on the changing trends towards environmentally conscious shopping was conducted by Gam (2011) related to consumer behavior in the clothing industry. 25 percent of the participants in the study reported that they had purchased environmentally friendly clothing (EFC), but only 18 percent of the participants who purchased EFC reported their purchasing decision to be influenced by the need to protect the environment. Although the number of consumers that had bought EFC was only a fraction of the total sample, over 80 percent of the consumers that had not bought EFC planned to switch to eco-conscious alternatives, with 53 percent of those reporting that their decision was based on supporting environmentally friendly manufacturers and products. A more recent study to understand the willingness of consumers to switch to eco-friendly alternatives was conducted by Madigele, Mogomotsi, and Kolobe (2017). The study was of significance to the project because it highlighted consumer behavior in a developing country, Botswana. The authors determined the behavior of the participants within the study when provided an option to switch to environmentally friendly bags as opposed to conventional plastic bags. The study found that females tend to be more inclined towards buying environmentally friendly products as opposed

to men. However, the overall purchase decision is dependent on the price of the product as well as the tax rate levied on the bags. Since plastic bags were relatively inexpensive, they were more inclined towards buying the cheaper option. However, the authors also pointed out that the participants agreed on purchasing sustainable bags if incentives were given on such products such as a reduction in tax, or a lower price in general. The studies provide significance for the project, as Gam (2011) highlighted the shift in consumer shopping patterns towards more environmentally conscious alternatives over the years, whereas the article by Madigele, Mogomotsi, and Kolobe (2017) indicated that the developing nations were also willing to switch to sustainable means if they remained within the budget of the average consumer. This further highlights the existence of a potential target market willing to switch to an eco-friendly lifestyle, but consumers are restricted by their purchasing power.

CHAPTER 2: PROJECT AND MARKET SUMMARY

2.1 EXECUTIVE SUMMARY

The increase in the number of consumers opting for online ways to purchase and research products, and the recent increase in environmental awareness among major economies such as China over the past decade (Du, et al. 2018) has paved the way for the average consumer to find sustainable alternatives online. However, stereotypical representations of sustainability are often associated with high price tags, especially among the Generation Z community, 37% of whom, according to Guzel (2020), considered them as unaffordable or too expensive despite their positivity. Although this is also the case for older generations, parents in the community are actively willing to pay relatively more for sustainable alternatives for their children, if there is good value for money (Andac and Guzel, 2020). This has allowed for a gap in the sustainability market, where consumers actively look online for resources that can direct them toward affordable eco-friendly products. Thinkin Greener is a solution that helps cater to this created need by offering a comprehensive informatory platform for consumers looking to switch to an environmentally friendly lifestyle on a budget. It allows customers to be informed about various sustainable alternatives they can switch to easily, and as an affiliate site, helps consumers direct themselves to the right product through affiliate links offered by Thinkin Greener's partners. The current target market for the platform is the community that is looking for cost-effective ways to go sustainable. This includes:

- Students who are often on a very tight budget due to their low-income or part-time jobs
- Anyone who wishes to make changes to their lifestyle to a more sustainable one.

Apart from households, the site also targets small businesses running on tight budgets such as restaurants and street cafes. As an affiliate business, Thinkin Greener generates its revenue

through the agreed commissions set with its partners. As per the model explained by Duffy (2005), with each sale made through the unique affiliate link, the partner agrees to pay a commission fee to Thinkin Greener for helping generate a sale. Once a specific threshold is reached, the partner releases the total payment to Thinkin Greener on the agreed-upon payment method. Current partners include Amazon.com and Greengeeks.com globally and have more recently signed up as an affiliate for Daraz.pk to target the local Pakistani markets. Thinkin Greener also considers partnering with environmental organizations a key to serving its purpose and therefore is currently approaching various environmental organizations in Pakistan for a potential partnership, where the platform will pledge a percentage of its revenue to donate to the partner organization.

2.2 MARKET ANALYSIS

2.2.1 Demographic

Although the target demographic spans all age groups and all social classes, the platform segregates its main audience into two categories. Individuals and businesses.

- Among the individuals, the most closely related demographic that Thinkin Greener serves exists among students and low-income households. Since one of the foundations of Thinkin Greener's existence is to target an audience living on a budget, it perfectly fits the target demographic who often due to financial constraints prefer affordability over convenience and luxury.
- The second category exists of small businesses such as newly created restaurants, home-based businesses, and even new affiliate businesses who wish to reduce their carbon footprint without breaking their budget constraints.

2.2.2 Psychographic

As hinted by the demographic section, the platform targets both individuals and businesses that wish to switch to sustainability on a budget. Since the platform deals with smaller, more economical alternatives, the target audience, therefore, is one looking for natural cleaners, energy efficient switches, and other domestic items (in the case of individuals), or small corporate items such as recycled paper or sustainably manufactured furniture (in case of small businesses).

2.2.3 Geographic

The geographic target segment for Thinkin Greener is highly dependent on the affiliate partners it associates itself with. Currently, Thinkin Greener is affiliated with three different platforms: Amazon.com, Greengeeks.com, and Daraz.pk. Among these, Amazon.com targets developed markets, particularly in the United States, the United Kingdom, Australia, and Canada. Greengeeks.com, being a web hosting service, targets the entire global market. However, due to the broadness of the target market, it has been relatively difficult to generate sales for this partner. Daraz.pk is a recent addition to the affiliation, which targets eco-conscious consumers in Pakistan. Apart from these, to further explore Pakistan's target market, efforts are being made to draw affiliations with natural/organic stores including Naturals.pk and the Hariyali store.

CHAPTER 3: COMPETITOR ANALYSIS

3.1 PORTER'S FIVE FORCES MODEL

3.1.1 Bargaining power of suppliers

As an affiliate business, Thinkin Greener is highly dependent on its partners to provide consumers with the end products/services, hence are the “suppliers” for the business. These manufacturers/service providers usually set a fixed rate for all their affiliates, and therefore the affiliates themselves (including Thinkin Greener) have no control over the commission rate for each sale made. The suppliers may also wish to terminate their affiliate program without notice or terminate a partnership with an affiliate and since there is no legal contract that restricts both parties from doing so, rendering the affiliate links on that platform useless. At the same time, as there are several affiliate programs online that offer similar products and services, and with the revenue being entirely dependent on the sales that the affiliate makes (with no minimum commitment in some cases), the affiliates may hold partnerships with multiple manufacturers, or may abandon their current partner and switch to another at their convenience. Therefore, the bargaining power of suppliers can be considered to have a high impact on the business.

3.1.2 Bargaining power of buyers

Since buyers continue to search for a resource that fulfills their needs, there continue to be alternatives that they can switch to find more relevant information. As affiliate marketers do not have a product of their own, but rather are affiliated with suppliers who provide these, there are similar affiliates who will provide the same product at the same price (since the manufacturer sets the price and commission themselves), making the buyer highly sensitive to any hike in price that the affiliate may charge on a particular product. As switching cost for the buyer is also negligible (as they can simply navigate to an affiliate who offers more relevant information or

contact the manufacturer directly), it can be considered that the bargaining power of buyers has a high impact on the business.

3.1.3 Threat of new entrants

Barriers to entry among larger affiliate programs such as Amazon.com are relatively higher than many smaller affiliate programs offered by manufacturers and service providers. However, for most affiliate programs in general, the barriers to entry are relatively lower, allowing a major influx of new competitors to enter the market. The costs of joining and running an affiliate business are also relatively low compared to other ventures, which makes it an attractive opportunity for potential entrepreneurs to start on a low budget. In addition, since products or services are distributed by partners, the need for distribution channels is also eradicated. However, due to affiliate businesses being entirely performance-based, it is increasingly difficult for a new entrant to be able to perform better than the already established affiliate businesses within the same niche, which already have a solid consumer following and partnerships with larger, more credible affiliate programs. Therefore, the impact of new entrants on the business is moderately high.

3.1.4 Threat of substitutes

Within any domain, the uniqueness and novelty of a product are considered dependent on the price category, and the niche that Thinkin Greener operates within contains several homogeneous products with similar pricing. Consumers, if not convinced by the brand information listed on the platform, can simply switch to an alternative website that offers them information on a product that fits their description of the “right” alternative. For example, one recycled toilet paper brand can be considered preferable by one audience, whereas another similar recycled brand of toilet paper, not featured on Thinkin Greener but found elsewhere, is

preferred by another audience. Therefore, there does exist a moderate to high threat of substitutes for Thinkin Greener as an affiliate business.

3.1.5 Internal Competition

Although a relatively untapped niche when considering the affiliate businesses in other domains, affiliates already competing within the environmentally friendly niche have well established themselves as some of the most lucrative businesses in the affiliate industry, with each evaluating at approximately \$300,000 on average. Within the industry, affiliates incorporate diversified approaches such as content, audio, video, social media, email, or a combination of the aforementioned to engage a larger audience and increase customer retention. However, switching costs for affiliates are often high, since an affiliate business operating in a niche addresses a specific audience through highly targeted content creation. Upon switching, the affiliate would need to scrap approximately the entire business before starting anew in another niche that would likely involve a different audience. Differences in the quality of resources utilized by an affiliate highly affect the amount of audience retained, which would also affect the indexing algorithms among search engines to show consumers results where retention is relatively higher, and vice versa. Therefore, there is high internal competition among the already existing affiliate businesses within the niche.

3.2 SWOT ANALYSIS

3.2.1 Strengths

As an affiliate business operating in the environmentally friendly niche, Thinkin Greener enjoys a relatively higher commission rate than affiliate businesses running in other domains. The average commission for an Amazon.com affiliate working in the electronic niche is 2

percent, whereas for Thinkin Greener it is 8-10 percent, depending on the product being sold. As the focus is primarily on sales and marketing, with no costs associated with production, the overall costs of running the business are relatively low, thereby offering a higher return on investment. With the recent addition of an AI-based content creation assistant named Jasper.ai, as well as an AI-based search engine optimization assistant named SurferSEO, Thinkin Greener can integrate the Attention, Interest, Desire, and Action (AIDA) model (Hassan, Nazdim, and Shiratuddin, 2015) with the right keywords to produce high quality converting content, thereby giving the edge over affiliates carrying out manual topic research, as well as save on the cost of hiring external talent to carry out research and content creation tasks.

3.2.2 Weaknesses

As with any affiliate business, Thinkin Greener does not have any control over the products being sold to the audience. The manufacturer may change, or completely remove the product from its offering without notice and any relevant traffic that may be associated with that product will no longer engage with Thinkin Greener. As revenue generated is completely dependent on the sales made through the affiliate links, Thinkin Greener can only generate revenue from a specific audience, even though the incoming traffic on the platform would contain much larger numbers consisting of an audience that is not interested in buying the product itself. Due to the mixed nature of the audience, the conversion rate for products as shown in the statistics may only approximate the true conversion rate which considers the audience interested in environmentally friendly products.

3.2.3 Opportunities

As an affiliate business operating within a niche that is relatively fresh in Pakistan, there is a major opportunity to exploit this market as one of the affiliate market leaders in the

sustainable niche through affiliate partnerships with different organic and natural stores in Pakistan, along with e-commerce stores such as Daraz.pk. Since there is a plethora of global affiliate programs available, Thinkin Greener could potentially expand to other related products in the targeted niche thereby increasing the target audience and hence, conversions. With an increased target audience and increased conversions, Thinkin Greener can potentially incorporate further tools and increase human resources to boost scaling and hence increased revenue reaching those of market leaders within the eco-friendly niche.

3.2.4 Threats

The affiliate industry in general is exceptionally easy to enter, especially due to the low barriers to entry. As much of the audience entering the website is dependent on the organic search through search engines, they are indirectly dependent on the ever-changing algorithms of the search engines themselves. Although customer retention may be able to curb that threat, a modified indexing algorithm can devalue the platform overnight, thereby collapsing the source of traffic. However, the most critical threat to Thinkin Greener is the threat of the partner removing the product or the affiliate program altogether without notice, rendering the affiliate links and the content linked to them useless until an alternative is found.

3.3 PEST ANALYSIS

3.3.1 Political Factor

Although operating remotely from Pakistan, Thinkin Greener may be influenced by any political orientations of the country where the partners operate from. Now, the global affiliate partners of Thinkin Greener both reside in the United States. If the government's policies towards Pakistan change, it may affect Thinkin Greener's operating income consequently.

3.3.2 Economic Factor

Although Thinkin Greener does not manufacture the products and services it promotes, the operational costs are highly dependent on foreign exchange rates since the AI tools being employed are both billed in US Dollars. With the increase in the US Dollar rate in 2021-2022, operational costs have increased by 8 percent since August 2021 as observed from exchange rates extracted online (Figure C1, Figure C2; see Appendix C). As Thinkin Greener also plans to employ more human resources and dedicated office space in the future, an increase in labor costs as well as rent will thereby increase the cost of operations.

3.3.3 Social Factor

Although Thinkin Greener's aim has been to target individuals and businesses from all communities, it still hasn't been able to gain any significant following among the developing nations. According to data extracted from Google analytics (Figure A1; see Appendix A), most converting traffic is generated from developed nations, primarily the United States and the United Kingdom. Developing nations such as those within Africa and Asia remain largely untapped due to social awareness or acceptance of sustainability as a means of living. This could significantly impair the growth of Thinkin Greener as a global platform.

3.3.4 Technological Factor

With the increase of affiliate businesses, several affiliates are employing newer technologies such as AI-based assistants and new variations of digital marketing techniques, each of which cost a significant amount of capital. With the increase in digital assistance for affiliates, it has become increasingly difficult to keep up with well-established affiliates with no budget constraints.

CHAPTER 4: OPERATIONAL SUMMARY AND MODEL

4.1 OWNERSHIP

Thinkin Greener is currently operating as a sole trader ship, with the owner(s) being liable for all costs, as well as responsible for all profits during the operational period of the company. During the start of the campaign, the entire venture was owned and operated solely by one individual (i.e., the author of this report). However, at the start of 2022, my wife joined the venture as co-owner and will be moving forward in a 50-50 partnership for both liabilities on losses as well as profit sharing.

4.2 LOCATION

Although originated in Lahore, Pakistan, Thinkin Greener does not operate via a dedicated office space. All operations are carried out remotely now to minimize costs and remove rent from expenses. However, with the planned increase in human resources, Thinkin Greener does plan to have a dedicated office space once it transitions to venture capital. Thinkin Greener can be accessed by users through the link or uniform resource locator (URL) “<https://www.thinkingreener.com>”. The website is available on all devices, including mobile, tablet, and desktop computers, and can be accessed from anywhere across the globe. Admins and editors of the website can access the website dashboard through a path on the same URL. However, for security reasons, the path remains hidden from the public (and this report) and is only accessible by people with the required password/credentials to the dashboard.

4.3 TECHNOLOGY

4.3.1 Selecting the hosting service

As an online platform, Thinkin Greener is hosted on Data Servers provided by an environmentally friendly hosting platform called GreenGeeks.com. GreenGeeks is one of the most popular web hosting services, offering unlimited storage and email accounts, as well as a 99.9 percent uptime guarantee for all plans. The purchase decision for the hosting service was primarily based on the environmental consciousness of the hosting company. However, several other factors contributed to the decision-making process. The following table shows an overview of the contender hosting providers and their differentiating features

Table 4.1: A comparison of the top sustainable hosting services online

Hosting Service	Advantages	Disadvantages
GreenGeeks	<ul style="list-style-type: none"> ● 99.9% uptime ● Free Content Delivery Network (CDN) ● Free website backups ● Free Secure Socket Layer certificate (SSL) ● Unlimited Storage and email accounts ● Multiple datacenters 	<ul style="list-style-type: none"> ● Limited plans ● Higher renewal price ● Interface relatively confusing
A2	<ul style="list-style-type: none"> ● Quick load times ● Unlimited email addresses ● Regular scanning for viruses and malware ● Free SSL certificate 	<ul style="list-style-type: none"> ● Storage space limited (100 Gigabytes) ● Sign up process tedious ● High renewal price
InMotion	<ul style="list-style-type: none"> ● 99.9% uptime ● Free website transfer ● 90-day money-back guarantee ● Free SSL certificate ● Unlimited bandwidth 	<ul style="list-style-type: none"> ● Very limited storage space ● Limited email accounts ● Hidden charges/upsells ● A limited number of servers

HostPapa	<ul style="list-style-type: none"> ● Quick load times ● Solid-state storage for quicker access to media files ● Unlimited bandwidth ● Free CDN ● Free training for beginners 	<ul style="list-style-type: none"> ● High priced add-ons ● No free backups ● Limited email accounts ● Very limited email storage ● The trial period has non-refundable hidden costs ● Several hidden charges
iPage	<ul style="list-style-type: none"> ● Cheapest reliable web hosting ● Free SSL certificate ● Free add-ons 	<ul style="list-style-type: none"> ● Upsell everything ● Very limited storage ● Slow load times ● Unnecessary plugins added ● The interface is not user friendly ● Website migrations are also paid

As indicated by Table 2, GreenGeeks offers several advantages and relatively fewer disadvantages in comparison to its competitors, which is why the decision was made to host “<https://www.thinkingreener.com>” via GreenGeeks hosting service.

4.3.2 Selection of programming language/framework

The platform is built on WordPress, a highly popular website creation framework built on Hypertext Preprocessor (PHP) programming language. WordPress has been increasingly popular among affiliates due to its versatility, availability of up-to-date plugins, customizability, and huge online community for diagnosing and resolving issues. However, some alternatives were considered as contender frameworks for Thinkin Greener. Here is a comparison of the similar options available.

Table 4.2: Comparison of development frameworks/content management systems (CMS)

CMS	License	Market share (%)	Installation	Ease of use	Plugins
WordPress	Free	63.5	One-click Install (5 minutes)	Beginner Friendly	56000+
Drupal	Free	2.6	One-click Install (10 minutes)	Requires coding	45000+
Joomla	Free	3.9	One-click Install (10 minutes)	Somewhat Beginner Friendly	8000+
Magento	Free	1.2	One-click Install (10 minutes)	Requires coding	3000+
Prestashop	Free	0.9	One-click Install (15 minutes)	Somewhat Beginner Friendly	4000+

Note. Data collected from Temok Hosting Blog (2020)

As indicated by the above table, WordPress offers a better experience than its competitors in terms of ease of use and installation. Additionally, with a much larger array of plugins available, it was therefore the most suitable option among all alternatives.

4.3.3 Website security

Security remains one of the most important aspects of any digital platform. As consumer knowledge of the web and potential privacy breaches grows, securing the website, as well as encrypting any relevant communication is of paramount importance. The classical view of Hickman and Elgamal (1995) on Secure Socket Layer (SSL) protocol states the importance of privacy in communication between the server and the client, as well as how SSL helps improve the privacy of communication by encrypting the data between both parties and preventing

eavesdropping of vital information. Therefore, to prevent attacks on communication from external sources, an SSL certificate has been installed on Thinkin Greener's Content Delivery Network (CDN). This certificate will intercept any traffic going to/from Thinkin Greener before reaching the target, will generate a private and public key to encrypt the data, and will send the key to the target thereby establishing a handshake before the actual data is sent. The data is then sent to the target which is then unencrypted by the shared key on the client side.

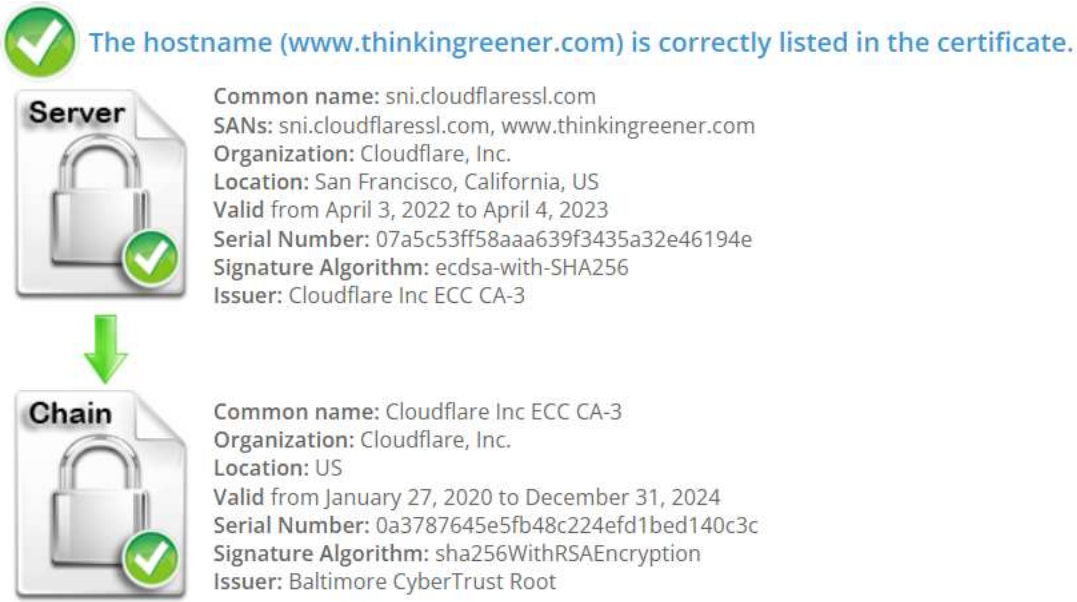


Figure 4.1: SSL certificate details. Extracted from: <https://www.sslshopper.com/ssl-checker.html#hostname=www.thinkinggreener.com>

Note. The details can be verified through the serial number and signature algorithm mentioned.

The certificate can also be verified by visiting “<https://www.thinkinggreener.com>”. It is noteworthy that the ‘s’ in https indicates a secure connection (Durumeric, Kasten, Bailey, and Halderman, 2013)

4.4 TOOLS

Thinkin Greener has utilized different tools for various parts of its operations. Here is a brief overview of all the tools used and their purposes. Each tool listed below had several alternatives. The tools were selected based on ratings from across the web, keeping the following 5 criteria in mind:

- Popularity: How popular the tool is among the users who are engaged with it
- Support: Customer support of the tool in case of any issues

- Updated ness: Whether the tool is consistently updated and compatible with the latest versions of other tools being used in conjunction
- Features: Whether the tool offers greater value in comparison to its competitors (both for free and paid tools)
- Ease of use: How easy it is to integrate the tool with the platform

4.4.1 Statistics

Statistical data helps track traffic, the location of traffic, the target page(s) or offers that are more attractive for the customers, as well as highlights any issues with the platform that need resolution. The statistical data helps monitor the current performance of a page or product offer and helps plan future actions or modifications that focus on serving the demand of the current website traffic. Following is a summarized table for the tools used to monitor and compile statistical data for the website. The table also highlights the primary criteria that distinguish the selected tool from its competitors (refer to section *4.4 Tools*).

Table 4.3: Tools selected for statistical data of Thinkin Greener

Name	Summary	Competitors	Selection criteria
Google Analytics	Tracking and reporting website traffic globally	<ul style="list-style-type: none"> ● Smartlook ● Clicky ● Hotjar 	<ul style="list-style-type: none"> ● Popularity ● Ease of use ● Features
Google Search Console	Checking indexing status and optimizing visibility on search engines	<ul style="list-style-type: none"> ● Semrush ● Ahrefs ● Similarweb 	<ul style="list-style-type: none"> ● Popularity ● Features
GreenGeeks Dashboard*	Tracking affiliate sales revenue during any given period for GreenGeeks.com	N/A	N/A
Amazon Associates Dashboard*	Tracking affiliate sales revenue during any given period for Amazon.com	N/A	N/A
Moz Domain Authority	Compare the popularity of Thinkin Greener with other similar websites in the niche via domain authority, ranking keywords, linking domains, and page authority	<ul style="list-style-type: none"> ● Ahrefs ● SmallSeoTools 	<ul style="list-style-type: none"> ● Ease of use

Note. The tools marked with (*) do not have competitors or selection criteria as they intend to display sales data made through Thinkin Greener for the affiliate partner. All tools are free.

4.4.2 Performance

For the website to perform smoothly, specific tools needed to be introduced to help lower load times and clear up unnecessary storage space. By compressing the images, removing redundancy in code files, and merging styling sheets for web pages (also known as Cascading Style Sheets (CSS)), the size of resources loaded is significantly reduced, therefore achieving

better load times. ad times. This not only helps provide a better user experience but also helps search engine crawlers parse the website more efficiently, allowing for better ranking and more accurate results on search engines. The following table provides a summary of the performance tools used and the criteria which distinguish them from their competitors (refer to section 4.4 *Tools*).

Table 4.4: Performance tools used to optimize the website

Name	Summary	Competitors	Selection criteria
Litespeed cache	Allows configuration of caching policies and minification scripts, as well as leveraging client browser caching to improve loading speeds	<ul style="list-style-type: none"> ● WP Rocket ● Super Cache ● W3 Total Cache ● SG Super Cacher 	<ul style="list-style-type: none"> ● Popularity ● Support ● Features
Google Pagespeed Insights + GTMetrix	Analyze and identify performance issues, page load times, unused scripts, and structural problems with the website	<ul style="list-style-type: none"> ● Pingdom ● StreStimulus ● DareBoost 	<ul style="list-style-type: none"> ● Popularity ● Ease of use ● Features
TinyPNG	The compression algorithm to reduce image size and improve load times for users	<ul style="list-style-type: none"> ● EWWW image optimizer ● Optimole ● Smush ● Short pixel ● Jetpack 	<ul style="list-style-type: none"> ● Ease of use ● Updated ness

Note. All tools are FREE, but some offer premium packages as well

4.4.3 Security

Apart from adding an SSL certificate for encrypting data (refer to section 4.3.3 *Website Security*), it is also important to continuously monitor website traffic to prevent any malicious attempts, as well as add additional authentication methods to prevent brute force attacks to access the administrator dashboard. The following table provides a summary of the security

plugins enabled on the site, as well as the criteria which distinguish them from their competitors (refer to section 4.4 *Tools*). To prevent unnecessary load, only two tools have been utilized to enhance the security of the platform.

Table 4.5: Performance tools used to optimize the website

Name	Summary	Competitors	Selection criteria
Wordfence	Malware scanner and firewall to protect attacks from unknown IP addresses and block known threats to prevent injection of malicious scripts on the website	<ul style="list-style-type: none"> ● SiteLock ● Patchstack ● Sucuri ● Imperva ● Astra security suite 	<ul style="list-style-type: none"> ● Popularity ● Features ● Ease of use ● Updatedness
WP 2FA	Prevent a successful brute force attack through two-factor authentication that only logs in through a one-time password sent to an external address	<ul style="list-style-type: none"> ● Duo two-factor authentication ● Rublon two-factor authentication ● Google Authenticator 	<ul style="list-style-type: none"> ● Ease of use ● Support

Note. All tools are free but offer premium packages as well

4.4.4 Content

Since Thinkin Greener operates under the affiliate classification of content-based websites (IAB, 2016), content optimization is essential to success. It is also important that content creation should also be carried out as effectively as possible to gain the attention of the target market and to efficiently implement the AIDA model (Hassan, Nazdim, and Shiratuddin, 2015) for better lead conversion. Content optimization is also an important factor for page indexing on search engines. According to the Webmaster guidelines (Google LLC, 2022),

optimization of content is a key player in better “crawling” of web pages. The guidelines provide a detailed overview of how well-organized content is better read by search engine crawlers, hence being able to distinguish legitimate platforms from less reliable websites, and thus providing better page ranking. However, the exact working of the algorithm is never disclosed by Google or other search engines to prevent users from misusing the ruleset to their advantage. Table 4.6 shows a summary of the tools used for content creation and optimization, as well as the competitors and pricing structure.

Table 4.6: Content optimization tools and their pricing

Name	Summary	Competitors	Selection criteria	Price (\$)
Rank Math SEO	Inline SEO plugin to provide real-time optimization rating based on content and keyword query	<ul style="list-style-type: none"> ● Yoast SEO ● SEO Manager ● All-in-one SEO ● SEO Framework 	<ul style="list-style-type: none"> ● Features ● Ease of use ● Support 	FREE
Surfer SEO	An Artificial Intelligence (AI) powered tool for content planning, keyword research, and content optimization through competitor analysis, allowing to generate of highly converting funnels for increasing sales through Thinkin Greene	<ul style="list-style-type: none"> ● Frase ● Clear scope ● Marketmuse ● Topic 	<ul style="list-style-type: none"> ● Features ● Support ● Updatedness ● Popularity ● Ease of use 	119/mo.
Jasper.ai (formerly Jarvis.ai)	AI-powered virtual assistant for creating optimized, unique content for the platform with minimal input	<ul style="list-style-type: none"> ● ClosersCopy ● Writersonic ● CopySmith ● Freelancers 	<ul style="list-style-type: none"> ● Popularity ● Features ● Updatedness ● Support 	119/mo.

Integration of AI-based virtual assistants for content creation proved especially significant. Before this, research was conducted to determine the cost of employing a freelance writer online. Three different platforms were explored for this purpose: Fiverr.com, Upwork.com, and Freelancer.com. On average, an established freelance writer on Upwork.com charged approximately 50 US Dollars per article. In contrast, the average of 15 established writers for a 2000-word article was approximately 75 US Dollars. Finally, writers from Freelancer.com charged 35 US Dollars per article on average. In comparison, Jasper.ai and

SEOSurfer offered unlimited article creation and content planning for a monthly fee of 119 US Dollars each, proving to be a more economical option.

4.5 OPERATIONAL MODEL

As sections 4.1 to 4.4 highlight the various sections of the operating model for Thinkin Greener, this section will summarize the operational flow of the platform, as well as how the various actors mentioned are utilized during the process.

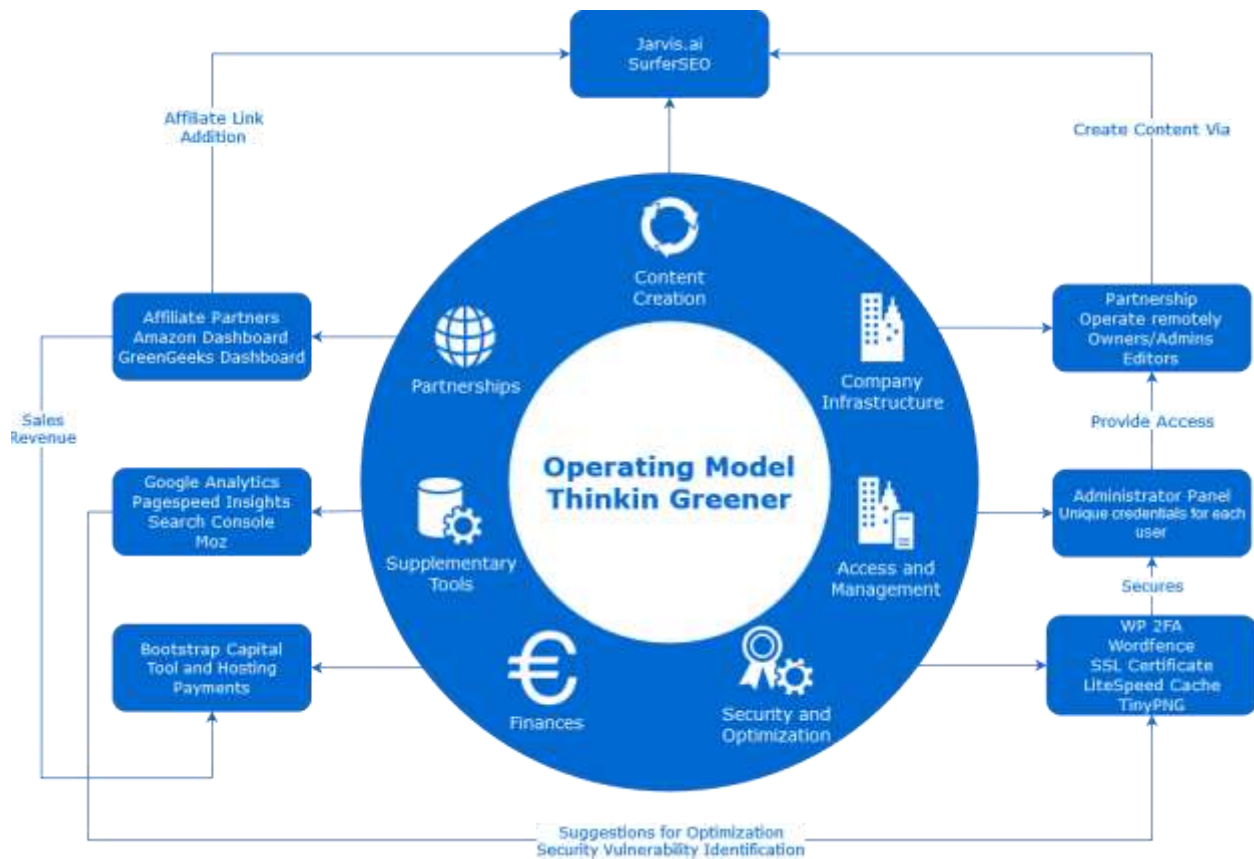


Figure 4.2: Operating Model - Thinkin Greener

Since the affiliate classification (IAB, 2016) of Thinkin Greener is Content based, it revolves around the content creation of the website. The upfront actors that contribute to content creation are the personnel within the company, as well as the affiliate partners which supply affiliate links for the content. The content is planned and optimized using SurferSEO, whereas the content is written on Jasper.ai, both of which are operated via Artificial Intelligence, and are monitored by the editors who may be required to make frequent changes to further optimize content. Affiliate partners are also responsible for dispatching the sales commission generated for the company, which links them directly to the financing backend where the payments for tools and hosting services are being made. The revenue being earned is re-injected to the payments, to reduce the outflow of bootstrap capital and, in the future, completely remove it once breakeven is achieved. Company personnel can access and manage the content through the administration panel, which is secured by two-factor authentication and a firewall to prevent malicious attempts to gain access to the admin dashboard. Statistical data for traffic and performance is obtained through external tools including Google Analytics and Moz, helping indicate any needs for optimization on the site, which are then handled by compression and minification plugins such as TinyPNG and Litespeed Cache. Communication throughout the website, including the administration panel, is secured via an SSL certificate, which encrypts data and further helps to prevent any attacks.

4.6 WEBSITE TRAFFIC

The initial estimation for the website traffic for the project was projected at 10,000 visitors a month at the time of compiling the final report. However, throughout the project, the actual number of visitors on the platform has been significantly inconsistent with the projected

outcome, thereby giving a much more realistic outlook on the total traffic. The current web traffic has also helped in determining a more rational figure for future milestones.

4.6.1 Traffic Overview



Figure 4.3: Overview of the total web traffic during the period November 2020 to April 2022

Data for the overall traffic since November 2020 on Google Analytics shows approximately 8500 users have visited Thinkin Greener, with a steady increase from January 2021 to October 2021, until a short decline during November 2021 to January 2022 period before returning to the original position by April 2022. With the resumption of activity on the platform, as well as strategies being planned for customer retention, traffic is expected to further increase in the coming months. Traffic has predominantly originated from the United States (Figure A1; see Appendix A). As previously mentioned, the overall website traffic is significantly lower than

the initially estimated figure of 10,000 visitors per month and displays a much more practical figure that is essential for planning out future web traffic goals.

4.6.2 Quarterly traffic

November 2020 - January 2021

Data for this period is unavailable since no integrations for analyzing website traffic were made for this time. However, traffic for this period can be ignored since during these months the website was still under construction and no major content had been added.

February 2021 - April 2021

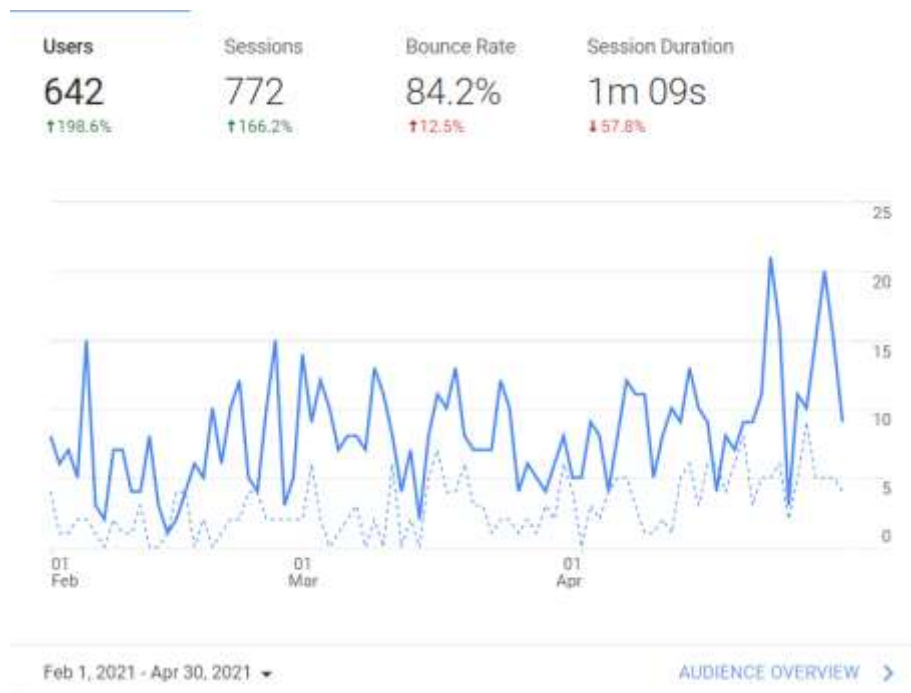


Figure 4.4: Total traffic from Feb-2021 till Apr-2021

From February till the end of April 2021, the website had seen a considerable number of impressions on search engines, as indicated by the Google search console (Figure A2; see Appendix A). The total traffic generated during this period was 642, showing an irregular

increase and decline during the three months. It is also noteworthy that the click-through rate (CTR), which is the ratio of impressions to the number of users visiting the website (Figure A2: see Appendix A), is very low due to the initial low ranking of the website. Figure 4.4 indicates that although there was significant progress with the number of visitors nearing 1000, it was still significantly below the goal set in milestone 2 of reaching 100 visitors per day. The statistic was significant as it was the earliest indicator that the initial website traffic goals were overstated and needed modification.

May 2021 - July 2021

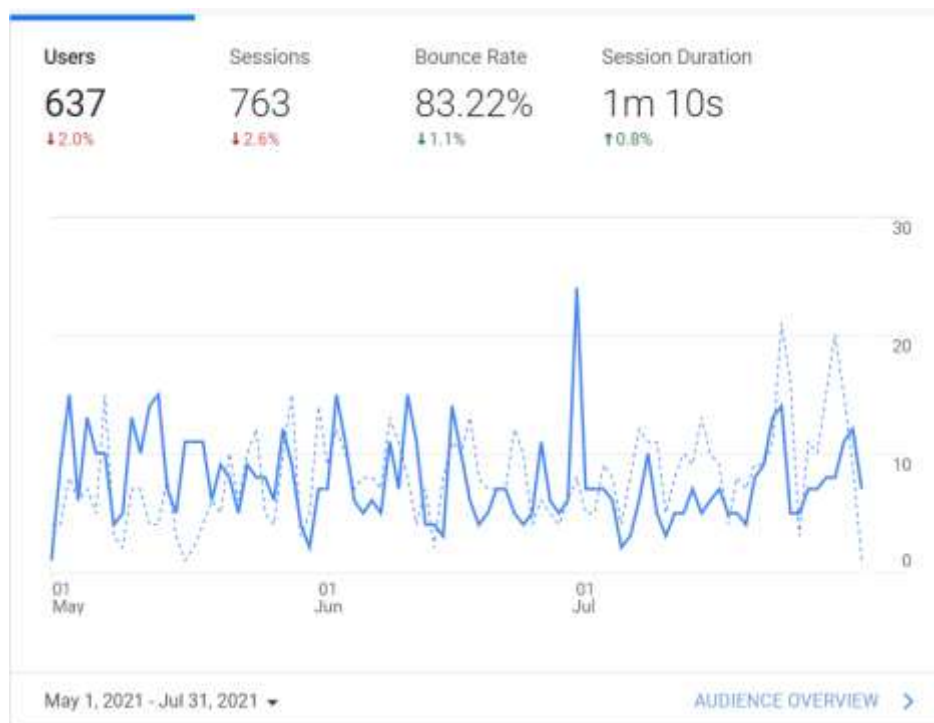


Figure 4.5: Total traffic from May-2021 to July-2021

During this period, traffic remained steady at around 600 visits. Still, there was a slight decline in visitors compared to the previous period due to the downtime and indexing errors

experienced during the implementation of the Content Delivery Network (CDN) (Figure A3; see Appendix A). Thankfully, the downtime was short-lived and did not significantly decline the number of visitors on the platform. The web traffic in this quarter further catalyzed the previous quarter's indication that the initial milestone goals were inaccurate. Therefore, the goal for web traffic at the end of the project was modified from 10,000 visitors per month to 2000 visitors per month (VPM).

August 2021 - October 2021



Figure 4.6: Total traffic from Aug-2021 till Oct-2021

There was a considerable increase in the amount of traffic for this period. The traffic originally showed the same consistent trend as in the previous period. However, with the addition of SurferSEO for content planning and optimization, the views considerably increased in October,

ending the period at 3500 users. The increase in traffic during this period indicated a positive outcome of the AI based tools employed for the website, and reiterated the rationality of the 2000 VPM goal set for the project.

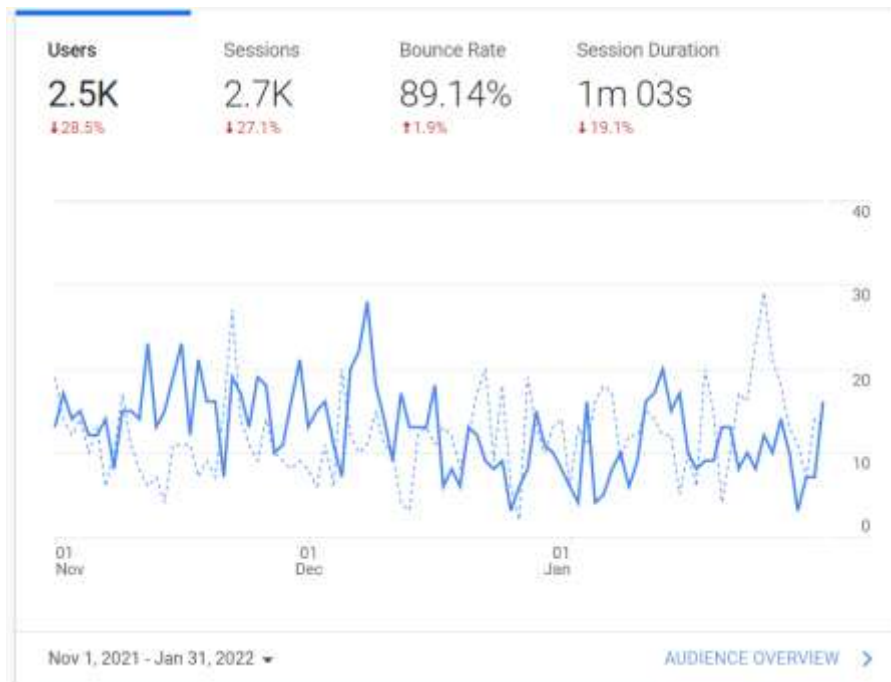
November 2021 - January 2022

Figure 4.7: Total traffic from Nov-2021 till Jan-2022

Although most sales were generated during this period, there was a sharp decline in the number of visitors due to inactivity on the platform. The number of users dropped approximately 30%, highlighting the need for consistent activity and user retention strategies. The period ended with 2500 users visiting the platform, a considerable decrease from the previous months.

Although this was a setback for the traffic goal of 2000 VPM, the quarter provided significant results to accurately calculate the traffic-to-lead generation ratio and conversion rate. Figure 7.4 shows the total sales made (39, 40 minus 1 returned item) and the total number of leads/clicks on affiliate links (71). Through this we can calculate the conversion rate as follows:

$$\text{Sales} \div \text{Clicks} \rightarrow 39 \div 71 \approx 0.55 \times 100\% = 55\%$$

Consequently, the traffic to lead generation (or CTR for affiliate links) can be calculated by:

$$\text{Clicks} \div \text{Traffic} \rightarrow 71/2500 \approx 0.02$$

The above results show that our lead conversion ratio is high at 55%, and the CTR is consistent with the Google Search Console data for the traffic from previous quarters (Figure A2; see Appendix A) which is still quite low and requires further attention.

CHAPTER 5: PROGRESS AND TIMELINE

5.1 PROGRESS

5.1.1 Project setup

Multiple hosting providers were researched to choose one that would suit Thinkin Greener’s goals for sustainability, along with offering good customer service, value for money, and high uptime. The decision was made to choose GreenGeeks. After purchase, further research was conducted to understand the inner workings of the hosting platform to fully utilize all its resources.

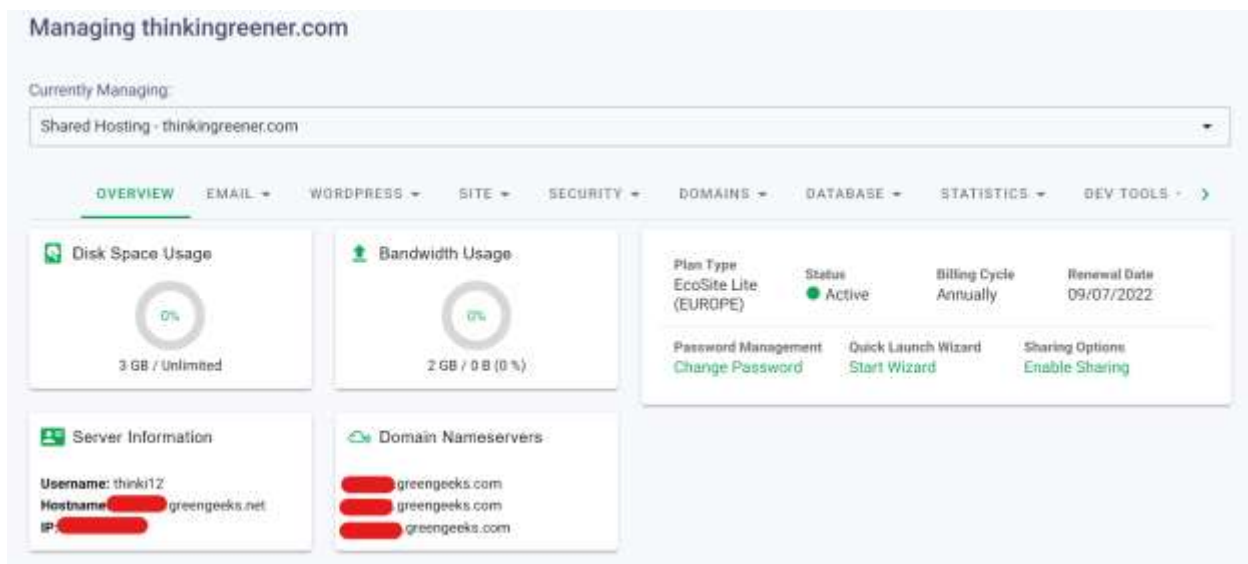


Figure 5.1: Hosting management console for Thinkin Greener at GreenGeeks.

Note. Server IP and domain information have been partially hidden for security reasons.

In order to make the project operational, a relevant theme was installed, and the administration panel was configured, thereby completing the initial project setup.



Figure 5.2: Project theme from Q4 2020 till Q4 2021

5.1.2 Security Infrastructure

As mentioned in Chapter 4, security is a priority to prevent eavesdropping on information, as well as malicious attempts to misuse or gain administrator access to the platform. It was therefore important to add relevant security measures immediately after project setup. The platform needed to transition from HTTP (hypertext transfer protocol) to https (hypertext transfer protocol secure); an infrastructure that depends on public and private keys for the secure transfer of data between the host and the client (Durumeric, Kasten, Bailey, and Halderman, 2013), therefore an SSL certificate was added to the website (refer to *figure 4.1*), along with the Wordfence firewall on the administration panel to prevent unauthorized access. Access was further secured later in the project by introducing WP 2FA as two-factor authentication, which generates a random code and sends it to the email address associated with the account upon login (Figure C3; see Appendix C).

5.1.3 Partnership with affiliate programs

Several affiliate programs were explored that offer environmentally friendly solutions to customers and were available for affiliates residing in Pakistan. Three affiliate platforms were

chosen for application: ShareASale, Amazon Associates, and GreenGeeks. Upon applying, Thinkin Greener was accepted as an affiliate for their web hosting platform, whereas Amazon Associates had accepted on a trial basis. Due to ceasing operations for affiliates in Pakistan, the application for ShareASale had been rejected. The first Sale for GreenGeeks had been recorded in March 2021 (refer to *figure 7.1*), whereas the initial sales for Amazon Associates were recorded in August 2021 (refer to *figure 7.3*), marking the end of the trial and accepting Thinkin Greener as a permanent member of Amazon Associates program.

5.1.4 Content creation

As affiliate partners began to supply affiliate links, a funnel needed to be created on the website to direct potential leads to the product offer. As Thinkin Greener is a content-based affiliate site, it utilizes the AIDA model (Hassan, Nazdim, and Shiratuddin, 2015) for the creation of its content.

What are some of the best brands?



Holy Scrap! is a leader in sustainable packaging. Their products are made from renewable resources and are 100% compostable. They offer a variety of sizes, including both small and large bags.

👉 Check the latest price drop on Holy Scrap's food scrap bags!
opens a new tab

Figure 5.3: Screenshot of an example of an affiliate link with the content. Full article at <https://www.thinkingreener.com/lifestyle/all-you-need-to-know-about-eco-friendly-food-scrap-bags/>.

Initial content creation was done manually, with keyword research being done from various websites and content being published/managed via the administration panel. However, in mid-2021, Jasper.ai and SurferSEO were added as AI-based virtual assistants to reduce content creation and optimization times. Through this new implementation, there was a significant time reduction in the creation of well-optimized content, thereby allowing a greater output of approximately 5 articles to be published in a single week. Integration of both SurferSEO and Jasper.ai has proved to be a successful move for the business. Through AI-assisted keyword research, content planning, content writing, and Natural Language Processing (NLP), over 150 articles have been successfully published and optimized on the platform and have demonstrated a higher conversion rate.

5.1.5 Statistical tools

To understand trends in traffic and the performance of the content itself among customers, statistical tools needed to be integrated into the website. Google Analytics and Search Engine Console were set up to track website data as well as distinguish well-performing campaign pages against pages that were not properly optimized. Statistical tools were especially helpful during the initial phases of the project when the website itself was incomplete and several instabilities and vulnerabilities existed within the platform that could potentially affect rankings on search engines. The tools also assisted in focusing on a specific campaign that the users enjoyed and helped determine the time users take on a performing page or a non-performing page before redirecting to somewhere else, also known as bounce rate (Poulos, Korfiatis and Papavlassopoulos, 2020). The analysis helped understand the content patterns that attract the consumer in the environmentally friendly niche and hence helped build more optimized and better-converting pages.

5.1.6 Performance optimizations

Apart from content optimization, the performance of the website needs constant monitoring for load times, spontaneous errors, and indexing, therefore to retrieve accurate monitoring data, performance monitoring optimization tools are being utilized including Litespeed Cache (Figure C10; see Appendix C), TinyPNG, GTMetrix, and Google page speed insights. GTMetrix and Google page speed highlight issues with the platform during load, whereas Litespeed Cache and TinyPNG, optimize codebase and images respectively (refer to section *4.4.2 Performance*). Since the platform requires accessibility across the globe, the load times for the website must be uniform when accessing from any location. For this purpose, Cloudflare was added as a Content Delivery Network (CDN), which distributes copies of the platform across data centers around the globe, allowing users to experience fast load times no matter their physical location.

CDN Finder
CDN lookup made easy.

Look up the names of all CDNs used on a web page or find out what CDN is behind a hostname or single URL.

Website Hostname or URL

[Run CDN Finder](#) [Bookmarklet](#)

Results

Count	Hostname	CDN
36	www.thinkinggreener.com	Cloudflare
1	www.googletagmanager.com	Google

Test ran on Wed, 29 Jun 2022 09:01:52 GMT from the [SIN](#) datacenter on Cloudflare network.

Figure 5.4: CDN lookup for Thinkin Greener. Extracted from

<https://www.cdnplanet.com/tools/cdnfinder/>.

Note. Each count represents one (1) location/node of copy for the Thinkin Greener website.

Among these, Thrive Suite, a solution specifically designed for affiliate businesses, was also recently purchased. The solution includes multiple tools for user engagement and retention such as quiz forms, opt-in forms, email marketing integrations, theme design, website optimization, testimonials, deal countdowns, and various other features. The website theme has completely been revamped to provide a more modern look (Figure C4; see Appendix C), which also improved page load times as custom CSS was no longer required, but already optimized by Thrive Suite.

5.1.7 Applying for incubation

During the Summer of 2021, Thinkin Greener had planned to apply for a seat at Plan 9, Lahore's largest incubation center. The requirements for application included a complete business plan, as well as pledging to be physically present at Plan 9 incubation center for 6 months after acceptance into the program. Due to the constraint of being a single-member business at the time, it was decided to withdraw the application until a new member within the company is employed. As of now, it is planned to re-apply for incubation at Plan 9 by the end of Q4 2022, with the increase in the number of personnel working for the company (refer to section 5.1.11)

5.1.8 Local market expansion

To further strengthen the position of Thinkin Greener as a sustainability-oriented business in Pakistan, multiple environmental non-governmental organizations (NGOs) were approached for potential partnerships. As of now, Contact has been established with the Society for Conservation and Protection of the Environment (SCOPE), and effort is being made to secure a partnership with the organization. In addition to working with NGOs, Thinkin Greener also plans to expand its affiliate partnerships with local eco-conscious and organic businesses in Pakistan. As of now, contact has been established with three different companies, including Naturals.pk, Hariyali store, and Nashonuma.com, each of which have an online presence in Pakistan, to propose potential affiliate partnerships.

5.1.9 Increase in company personnel

As of January 2021, Thinkin Greener has transitioned from a single-member business to a partnership, with a family member joining as the co-owner of the business. The co-owner is responsible for the initial content planning of the platform, as well as researching more lucrative

products on Amazon. As the co-owner is still under training, the current output from the resource is relatively low but is expected to increase productivity over time.

5.2 TIMELINE

To graphically display the major tasks completed (and the ongoing ones), the data has been organized and compiled in the Gantt chart (Figure 5.5). Content creation and site optimization are ongoing processes that will remain active throughout the life of the platform. In addition, major highlights, such as a purchase decision and the first sales being generated, have also been included in the chart. An external online tool TeamGantt has been utilized to develop the chart.

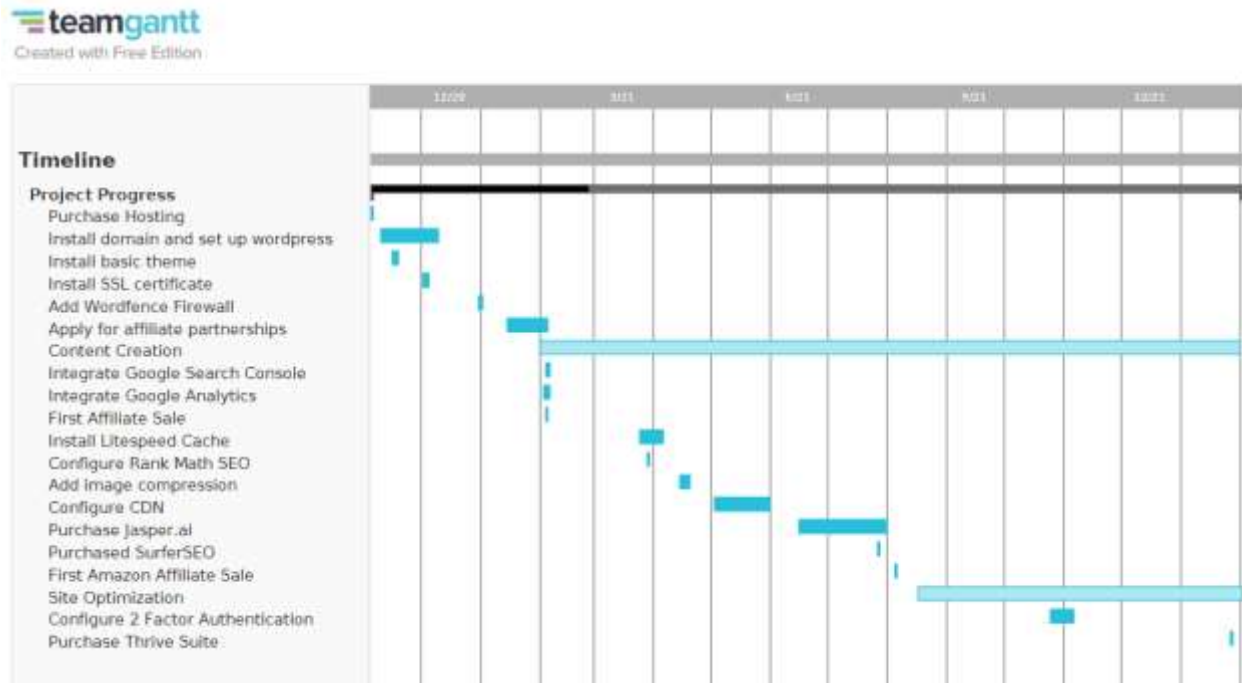


Figure 5.5: Project timeline visualized as a Gantt chart. Retrieved from

<https://www.teamgantt.com>

Note. The difference in color for certain tasks highlights the task as “ongoing”. Opaque blue (Hex: #27c0db) indicates a completed task, whereas light blue (Hex: #abe7f1) indicates an ongoing task.

CHAPTER 6: MILESTONES AND FUTURE PLANS

6.1 MILESTONES

The following deliverables were set during the project proposition. The overall project outcomes and milestones were previously as follows:

6.1.1 Previous Project Outcome (As per proposal)

- Generate at least 10,000 visitors per month (VPM) by the end of the project
- Generate 500 USD in total sales for affiliate partners through Thinkin Greener

The platform has currently been browsed by approximately 8500 visitors since the start of the project, which is significantly lower than the target of 10,000 VPM (refer to section 4.6 *Website Traffic*). Therefore, the future milestone for this project has been modified to a more realistic figure. With increased personnel, Thinkin Greener plans to further exploit the local market and is currently in talks with local organic stores. Along with the incubation planned for the end of this year, we plan to achieve a new monthly traffic goal of 2000 VPM by the end of Q4 2022. November 2021-January 2022 were highly successful months for the platform, generating over 700 US Dollars in sales. The sales for both months were split at approximately 400 US Dollars in November, 100 US Dollars in December, and 250 US Dollars in January (refer to section 7.2.2 *Amazon Associates*). A similar trend was also seen in the quarter of February 2022-April 2022 (refer to section 7.2.2 *Amazon Associates*), where the total sales generated were over 1000 US dollars. This showed a significant upward trend toward higher revenues, bringing the business closer to the sale generation goal of 500 US Dollars per month. Although the milestone of 500 US Dollars per month was not met, November 2021 to April 2022 offered good insights into the processes that were successful in generating high conversion rates. The business plans to further enhance those processes and resume efforts to utilize social media

marketing of the platform, thereby assisting in reaching our goal to generate sales of more than 500 US Dollars per month by the end of Q4 2022.

Therefore, the new project outcomes are as follows:

6.1.2 New Project Outcome (by the end of Q4 2022)

- Generate at least 2,000 VPM
- Generate 500 USD in total sales for affiliate partners through Thinkin Greener

6.2 MILESTONE 1

All deliverables in milestone 1 have been completed. The following is a summary of the tasks set for the first milestone.

Table 6.1: Deliverables for milestone 1

Deliverables	Progress
Buy Hosting Plan	Done
Partner as Amazon Affiliate	Done
Partner as GreenGeeks Affiliate	Done
Setup Google Analytics	Done
Add tools to the platform	Done
Setup Image Compression	Done
Add a theme to the site	Done
Add at least 50 articles to the website	Done
Generate traffic of at least 30 users per day	Done

6.3 MILESTONE 2

The summary for deliverables for milestone 2 is as follows. All deliverables for this milestone have also been completed, except the partnership with the ShareASale affiliate

network, which is rendered invalid. The partnership had failed because the affiliate network no longer supported applicants from Pakistan, hence the deliverable is now considered invalid.

Table 6.2: Deliverables for milestone 2

Deliverables	Progress
Optimize website for SEO	Done
Generate at least one sale	Done
Generate 100 traffic per day	Done
Partner with ShareASale	Rejected/Invalid
Reach 120 articles on the platform	Done
Achieve a 20/80 ratio on promotional and informative content	Done
Generate traffic from backlinks	Done
Have at least one article ranked on the first page of any search engine	Done

6.4 MILESTONE 3

For milestone 3, several tasks remain in progress due to resource constraints or responses from third parties. Social media pages for Thinkin Greener were set up, but due to inactivity, they had been temporarily disabled. We plan to re-activate the social media platforms once further resources (social media managers) are hired. The business plans to further continue optimizing and delivering content to generate 500 sales and the new goal of 2,000 VPM by the end of Q4 2022, which would be catalyzed by email opt-ins and other customer retention strategies currently under implementation. The business has successfully partnered with Pakistan-based Daraz.pk as an affiliate and is pending a response from the Society for Conservation and Protection of the Environment (SCOPE) for potential partnering opportunities.

Table 6.3: Deliverables for milestone 3

Deliverables	Progress
Setup social media	Paused
Generate 500 USD in affiliate sales per month	Pending
Generate 10,000 visitors per month	Pending
Hire a social media manager	Not Done
Reach 160 articles on the platform	Done
Purchase automation software	Done
Setup opt-in for email capture	In Progress
Partner with at least one Pakistani brand as an affiliate	Done
Partner with at least one Pakistani NGO working in the environmental sector	Pending

6.2 FUTURE PLANS

As Thinkin Greener continues to grow and serve its niche of environmental enthusiasts, we plan to go beyond the scope of the project milestones and continue to build on this foundation.

6.2.1 Completion of remaining objectives in given milestones

Thinkin Greener, since the beginning, has had the aim of going beyond the scope of this project and fully transitioning to a successful business in the longer run, therefore the objectives set in each milestone were also based on the abovementioned overall aim. The completion of the remaining objectives will allow Thinkin Greener to progress towards the next stages of its cycle systematically. One of the primary objectives for Thinkin Greener is to implement strategies for customer retention, thereby increasing the customer base, and consequently, sales. Thinkin Greener also plans to complete all its objectives for the third milestone, which includes securing

partnerships with environmental NGOs in Pakistan, as well as management of the platform's social media presence.

6.2.2 Partnerships with Pakistan-based sustainable e-stores

Thinkin Greener also plans to further expand its affiliate partnerships with multiple stores in Pakistan. The business plans to offer all sustainability-based shops (both with and without digital presence) services to set up their affiliate program, in exchange for an exclusive commission rate through Thinkin Greener. Currently, Thinkin Greener is in talks with Naturals, a Lahore-based organic store that offers healthy, fresh, and sustainably sourced produce to both On-site and Online customers in the city. Currently, Naturals does have an e-commerce presence, but it does not have any affiliate program added for attracting affiliate marketers. Thinkin Greener plans to propose the addition of an affiliate program to their website, which would allow marketers to sign up as an affiliate and market their products for a certain commission amount. In return, Thinkin Greener will be entitled to a relatively premium commission rate higher than that of other affiliates that may sign up. Figure C9 (See appendix C) displays the workflow for the proposal of setting up affiliate programs for potential partners having an online presence, as well as those with no e-commerce stores. The development of the solution itself will be based on the Waterfall model of the Software Development Lifecycle (SDLC), the simulation of which was presented by Bassil (2012). Initially, the requirements of setting up an affiliate program will be gathered, which are dependent on the technology adopted for the website. Based on this, a solution will be designed, developed, tested, and evaluated until reaching satisfactory results before launching to production. For opportunities without an online presence, Thinkin Greener will also propose to build their online e-commerce platform integrated with an affiliate program upon acceptance of the terms discussed with the potential partner.

6.2.3 Transition to Venture Capital and product-based business model

One of the major limitations of Thinkin Greener is the funds required for its operations. Currently, the business is slowly generating revenue on bootstrap capital and is projected to increase profits over the coming months. However, the development of affiliate solutions mentioned in the previous section, as well as effort on social media marketing will require additional specialized talent, which cannot be covered by bootstrap means. Therefore, Thinkin Greener plans to transition to a venture capital-based business and attract investors through its business model in return for an equity share. With the increase in recognition in the Pakistani market, Thinkin Greener plans to transition to a product-based business in the upcoming years. Through Venture Capital funding and partnerships with sourcing and manufacturing companies, Thinkin Greener plans to transition to a product-oriented business model and launch its line of sustainable everyday products such as tissue rolls and recycled garbage bags for the Pakistani community at affordable rates.

6.2.4 Targeting audience in the European region

The European region in recent years has invested heavily in sustainable alternatives. Camilleri (2020) highlights the government's efforts to encourage sustainable production among manufacturers and promote the reuse-reduce-recycle principle to lower the carbon footprint to contribute towards a cleaner Europe. Further incentives provided by the governments on greener alternatives such as discounts and usage benefits have also attracted the interest of the average consumer in the region. As households in Europe are actively moving toward a more carbon-neutral lifestyle, Thinkin Greener will look to leverage this demand to expand its target audience and sales. This will require partnerships with European companies offering affiliate programs, including Amazon's regional online stores such as Amazon UK and Amazon Germany.

CHAPTER 7: FINANCIALS

7.1 EXPENDITURES

Table 7.1: Total summary of expenses incurred during the project (as of January 2022)

Expense	Cost (USD)	No. of times Incurred	Total Cost (USD)	Billing Cycle
Hosting Plan	131.40	2	262.80	Annual
Domain Renewal	13.95	2	27.90	Annual
WHOIS ID protect	9.95	2	19.90	Annual
Jasper AI	119.00	7	833.00	Monthly
SurferSEO	119.00	5	595.00	Monthly
Thrive Suite	228.00	1	228.00	Annual
Grand Total (USD)			1966.60	

As an online platform, the expenses were primarily incurred as the cost for hosting plans or tools being used for optimization or generation of content. Hosting plan, domain renewal, and online ID protection (provided by WHOIS) were all handled under one invoice by Greengeeks (Figure C5; see Appendix C) and are billed annually. Jasper AI and SurferSEO are pivotal tools required to generate optimized content and to save on the costs of hiring external freelance talent who would prove to be more costly. Both of these plans are renewed monthly at 119 US Dollars and are currently the highest accrued costs for the business (Figure C6 and Figure C8; see Appendix C). Finally, ThriveSuite, a set of tools directed at affiliate businesses for optimization, high conversion, email integration, and customer retention has been recently purchased at an annual plan of 228 US Dollars (Figure C7; see Appendix C). The Suite is currently the third largest accrued expense for the business after SurferSEO and Jasper AI.

7.2 SALES

7.2.1 Definition of a “sale”

Before proceeding to the sales figures obtained through the affiliate channels in this section, the definition of a sale (and its associated revenue) must be defined. A “sale” in the context of this report is considered when a customer purchases goods or services from the affiliate partner through Thinkin Greener. This purchase is counted as a “sale” for both Thinkin Greener and the affiliate partner. For the affiliate partner, this counts as a good or service purchased, whereas for Thinkin Greener it counts as a lead sold to the affiliate partner (as a purchase was made), and the partner would pay a certain commission. However, it is noteworthy that even though the sale was counted for both the affiliate partner and Thinkin Greener, the revenue earned by the affiliate partner would be from the customer, whereas for Thinkin Greener the revenue earned would be from the affiliate.

Affiliate sales were generated for two primary partners: GreenGeeks.com and Amazon.com. Here are the summaries for both partners:

7.2.2 GreenGeeks.com

GreenGeeks.com has a snowballing affiliate offering, where an increase in sales in each timeframe (defined by GreenGeeks as one (1) month) by the affiliate would result in a higher commission per sale overall. The commission rate starts from 50 US Dollars (USD) for the first sale and a 10 USD increase in commission for every additional sale (which would also be added on to the previous sale). For example, if three sales are made through Thinkin Greener in a timeframe, each sale would not count as 50 USD, but 70 USD. Therefore, the total revenue generated would be equal to:

$$70 + 70 + 70 = USD 210$$

The image shows two screenshots from a dashboard. The top screenshot is titled 'Campaign Tracking' and displays a table with the following data:

Campaign Code	Signups	Percent of Signups	Gross Clicks	Percent of Gross Clicks	Gross Conversion Rate	Unique Clicks	Percent of Unique Clicks	Unique Conversion Rate
default	1	100.00%	148	100.00%	0.68%	102	100.00%	0.98%
Total	1	100.00%	148	100.00%	0.68%	102	100.00%	0.98%

The bottom screenshot is titled 'Click Breakdown' and displays a table with the following data:

Campaign Code	Sales	Gross Clicks	Unique Clicks
2021: Total Sales 1 Total Gross Clicks 97 Total Unique Clicks 66			
default	1	97	66
Total	1	148	102

Figure 7.1: Overall sales data for GreenGeeks

Thinkin Greener was able to produce only one sale for GreenGeeks during the past 1 year. Since Thinkin Greener primarily targeted homeowners looking to make lifestyle changes in their own homes, the content was not often targeted towards small business owners, and still requires further targeting to achieve more sales for this affiliate partner. As per details, there have been a total of 102 unique clicks, with only one confirmed signup, thereby yielding a conversion rate of:

$$(\text{Sign ups} \div \text{Clicks}) \times 100\% \rightarrow (1 \div 102) \times 100\% \rightarrow 0.0098 \times 100\% = 0.98\%$$

7.2.3 Amazon Associates

Unlike GreenGeeks.com, Amazon Associates runs a percentage-based model for affiliate commissions on each sale. Every commission is a percentage of the price of the product sold which may range from 4 percent up to 60 percent. The percentage is determined by one or more factors including (but not limited to) type, price, and popularity, making it increasingly hard to

calculate the commission gained on individual items. The Amazon Associates dashboard (refer to *figures 7.2 to 7.5*) displays the total product sales and their total value over a given period, as well as a list of products sold. However, it does not mention the commission gained for each item or the percentage commission entitled on each product, and commissions may be reversed in case of any returns. Therefore, the total confirmed earnings are only known once released by Amazon at the end of each month.

Sales from Amazon.com can be divided into three categories since approval; May to July 2021, August to October 2021, and November 2021 to January 2022.

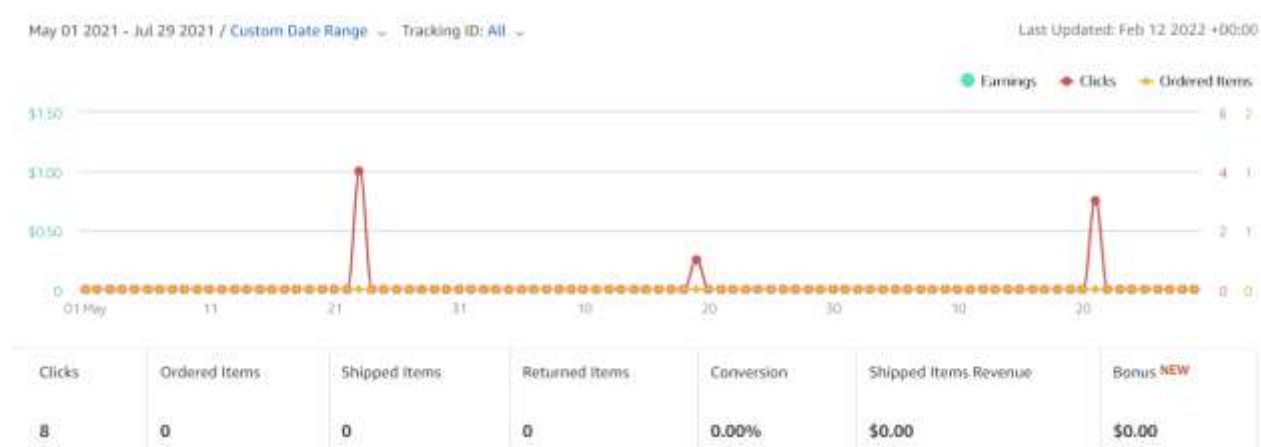


Figure 7.2: Sales data for May-21 till Jul-21

Throughout the first period, Thinkin Greener's status as an affiliate for Amazon.com remained temporary, with a total of 8 clicks being generated with a 0 percent conversion rate, thereby yielding no sales.



Figure 7.3: Sales for Aug-21 till Oct-21

During August, the first four (4) sales through the platform were generated, confirming the status of the platform as a permanent affiliate partner for Amazon. The platform then generated another sale later in the period. A total of 10 items were ordered from 19 clicks at a 53% conversion rate, yielding a total of 153 US Dollars in sales:

$$(\text{Sales} \div \text{Clicks}) \times 100\% \rightarrow (10 \div 19) \times 100\% \rightarrow 0.526 \times 100\% \approx 53\%$$

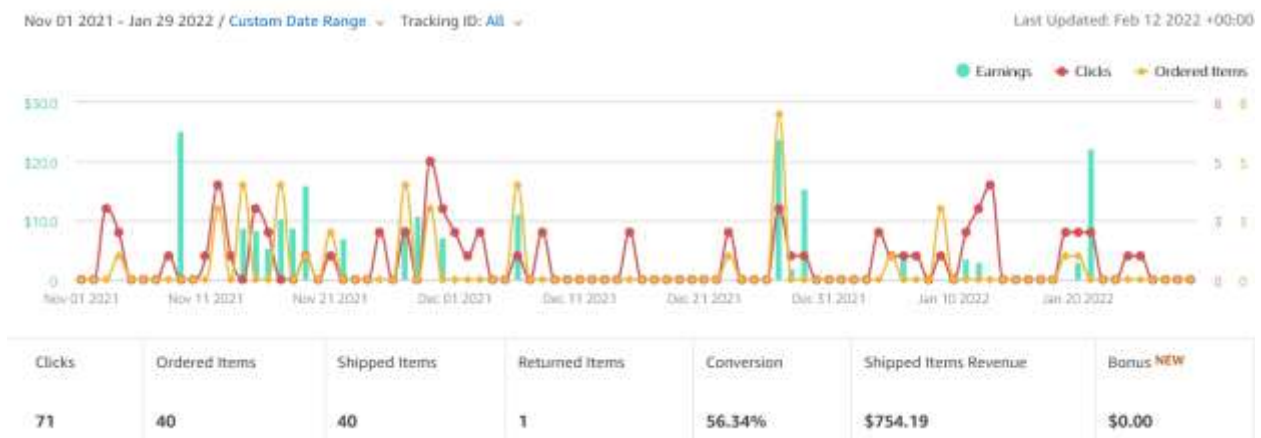


Figure 7.4: Sales for Nov-21 till Jan-22

In the next quarter, there was a major influx in sales and clicks. November yielded the highest sales, but due to inactivity on the platform itself, the sales were relatively lower in December and January. A total of 40 items were sold during this period (with 1 returned item), yielding sales of over 750 US Dollars at an *actual* conversion rate of:

$$(\text{Sales} \div \text{Clicks}) \times 100\% \rightarrow ((40 - 1) \div 71) \times 100\% \rightarrow 0.549 \times 100\% \approx 55\%$$

Note. The conversion rate in *figure 7.4* does not account for the item returned, which is why the *actual* conversion rate calculated is lower than the one mentioned in the image.

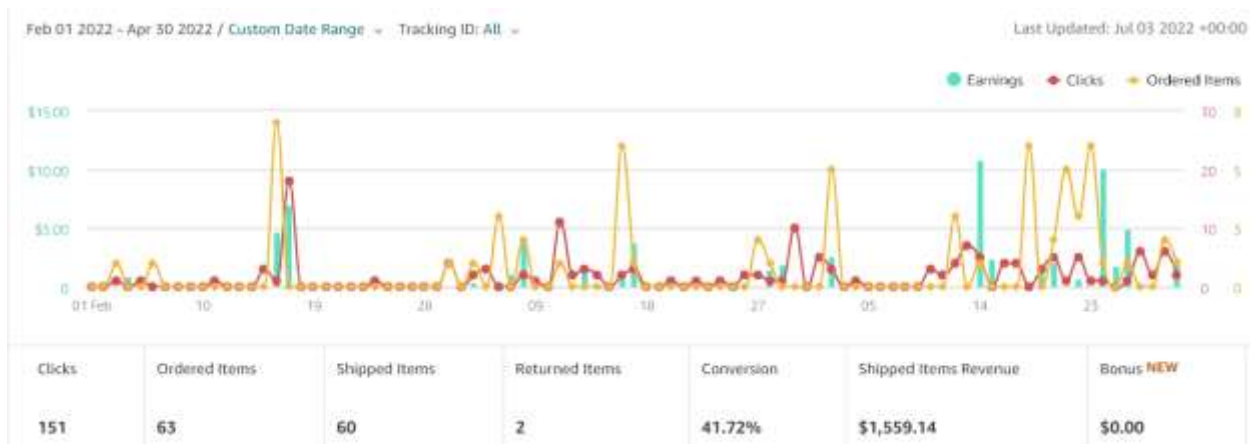


Figure 7.5: Sales for Feb-2022 till Apr-2022

Following the trend from the previous quarter, the sales continued to soar and doubled to reach an amount of 1,559 US Dollars. This was a huge increase in sales as per data and seemingly shows that the goal to reach 500 US Dollars in sales per month has been reached. However, the uneven distribution of the data shows that a high percentage of the sales occurred during April. Therefore, it can be deduced that the sales data does not act as supporting evidence for reaching the overall project sales goal, but it does act as an indicator of a positive trend toward reaching it. Despite the high sales, one concerning observation from this quarter was the

decrease in conversion rate. The conversion rate had increased during prior quarters throughout the project. However, there was a significant drop of approximately 15 percent compared to the November 2021 – January 2022 quarter, which may need further investigation:

$$(\text{Sales} \div \text{Clicks}) \times 100\% \rightarrow ((63 - 2) \div 151) \times 100\% \rightarrow 0.404 \times 100\% \simeq 40\%$$

Note. The conversion rate in *figure 7.5* does not account for returned items, therefore the rate shown in the figure is higher than the true rate calculated above.

7.3 CASH FLOWS

Following are the cash flow statements for the full year 2021 and the first half of 2022. As mentioned in the statements, the entire project has been funded through a monthly injection of bootstrap capital of 300 US dollars (equating to 3600 USD annually).

7.3.1 Cash flow statement ending December 2021

**THINKIN GREENER
STATEMENT OF CASH FLOWS
Year ended December 2021 (In USD)**

Cash at beginning of the year	\$ 1,500.00
OPERATING ACTIVITIES	
<u>Activity</u>	
Net Income Received from Sales	257.50
Accounts Receivable (GreenGeeks)	50.00
Accounts Receivable (Amazon Associates)	88.75
Tool Purchase (SurferSEO)	714.00
Tool Purchase (Jasper AI)	476.00
Platform Hosting	131.40
<i>Cash Flow from Operating Activities</i>	<i>925.15</i>
FINANCING ACTIVITIES	
<u>Activity</u>	
Bootstrap Capital Injection	3600.00
<i>Cashflow from Financing Activities</i>	<i>3600.00</i>
Cash at End of the Year	\$ 4,174.85

7.3.2 Cash flow statement for January-June 2022

THINKIN GREENER
STATEMENT OF CASH FLOWS
Half Year ended June 2022 (In USD)

Cash at beginning of the year	\$ 4,174.85
OPERATING ACTIVITIES	
<u>Activity</u>	
Net Income Received from Sales	901.86
Accounts Receivable (GreenGeeks)	0.00
Accounts Receivable (Amazon Associates)	75.33
Tool Purchase (SurferSEO)	714.00
Tool Purchase (Jasper AI)	714.00
Theme Purchase	228.00
Platform Hosting	131.40
<i>Cash Flow from Operating Activities</i>	<i>810.21</i>
FINANCING ACTIVITIES	
<u>Activity</u>	
Bootstrap Capital Injection	1800.00
<i>Cashflow from Financing Activities</i>	<i>1800.00</i>
Cash at End of Half Year	\$ 5,164.64

A comparison of the two cash flow statements indicates a significant increase in the net income for the latter period. Even though the latter statement only considers the first half of the year, the net income is significantly higher than the previous year's entire received income (257 USD vs 901 USD). Primary expenses have been the Artificial Intelligence-based assistants (SurferSEO and Jasper AI). The operating activities currently deviate toward negative cash flow from operating activities. However, with the snowball increase in revenue year on year, the business expects to break even in the coming months. It is also noteworthy that the overall cash at the end of the period has also increased from the previous period, indicating that the current

financial capital injection and net income are supporting operational activity and the surplus consequently results in an overall positive cash flow.

CHAPTER 8: CHALLENGES FACED

8.1 AFFILIATE PARTNERSHIPS

One of the major challenges during the start of the program was to find established affiliate programs that would offer sustainable products, accept new platforms as affiliates, and have a payment method that supports Pakistani affiliates. ShareASale.com and Amazon.com were the preferred affiliate networks that offered a huge variety of sustainable products at variable commission rates. However, ShareASale had recently blocked all requests from Pakistan, which is why Thinkin Greener, despite applying to ShareASale before the change, was rejected.

8.1.1 Affiliate programs in Pakistan

Affiliate marketing programs, despite being extremely popular among businesses around the world, have been largely untapped in Pakistan. One of the reasons why affiliate marketing may not be popular among businesses in Pakistan is due to the relatively lower spending online, compared to developed nations such as the United States and the United Kingdom. In 2018, the total online spending (excluding cash on delivery sales) from Pakistan only exceeded 250 million US Dollars (State Bank of Pakistan, 2018). Despite this, a few major online stores, such as Daraz.pk and Telemart.pk, have introduced affiliate programs that promise good returns. However, among the environmentally friendly domain, the options remain quite limited due to the very limited demand among Pakistani consumers. This also remained one of the most common setbacks when approaching organic/natural stores for affiliate partnerships. These stores do have an online presence, but no affiliate programs are set up that can be leveraged to redirect more consumers. To counter this, Thinkin Greener has approached Naturals to help set up an affiliate program. However, this will require a major revamp of their digital platform.

8.2 SEARCH ENGINE OPTIMIZATION (SEO)

One of the primary ways to increase traffic to any platform, whether it be an e-commerce website, a social network, or simply a blog, is to focus heavily on SEO. Search engine optimization is a set of techniques that website owners use to help search engines crawl, index, and rank their content better than their competitors. A few aspects of SEO include keyword research, on-site optimization, technical SEO, and link building (Beginner's Guide to SEO [search engine optimization], 2021). Since several aspects of SEO need to be addressed throughout, it remains an increasingly difficult task to carry out. However, with the addition of the co-owner in January, one member can now solely focus on SEO-related tasks, whereas the other focuses on content and product research.

8.3 SUSTAINABILITY EFFORTS IN PAKISTAN

8.3.1 Pakistan-based sustainable stores

Thinkin Greener is a Pakistan-based business, therefore it has planned from the beginning to serve the Pakistani market for sustainable products. However, exploration of such markets has been relatively limited, since awareness of sustainability is non-existent among most of the country's residents, and hence a relatively limited demand for affordable sustainable products. Since Pakistan faces a huge illiteracy crisis having the lowest education rates in the OIC region (Kalhor, 2020), and with people lacking basic education, it is unsurprising to have little awareness of eco-friendly alternatives, especially among the dominant social classes. Among the upper class, however, there does exist considerable environmental awareness and consumers are actively switching to eco-friendly means, which is also evident since all sustainability-oriented

stores that were communicated for potential partnerships existed in DHA, which is considered as an upscale region of the city.

8.3.2 Environmental organizations in Pakistan

Another challenge that Thinkin Greener has faced while trying to increase its presence in the Pakistani market is the struggle to approach non-governmental organizations dealing with environmental sustainability in Pakistan. Most of the environmental sustainability organizations in Pakistan, such as the Pakistan Environmental Protection Agency and the Sustainable Development Policy Institute, are run under government supervision, therefore approaching for partnerships and gaining access to major stakeholders of these organizations proved to be a major challenge, especially during the lockdown period for the Coronavirus pandemic. Most non-governmental organizations working for environmental sustainability were also hard to approach since some of them had been shut down (namely the Sustainable Development Foundation, which was contacted in July), whereas others had outdated information online and were currently dormant due to the pandemic.

8.4 RESOURCE CONSTRAINTS

8.4.1 Finances

Throughout its operations, the platform has continued to be financed by bootstrap capital. Although during the initial phases, the costs of various activities including setting up the website as well as adding AI tools for the platform were considered feasible by self-funding, it will bring major challenges when considering the scalability of the project, which includes creating a greater social media presence, expanding to further markets, hiring talent for management and content creation purposes, and in later stages, sourcing for Thinkin Greener's product range.

Therefore, to tackle these obstacles, the business must seek out venture capital funding through an investment platform that would allow Thinkin Greener to proceed smoothly with its planned operations for the upcoming stages. Removing the financial barrier would benefit the business in terms of scalability, but in contrast, would also potentially mean offering equity of the business to the investor.

8.4.2 Human resource

As a single-member business since its inception, Thinkin Greener has struggled with having the necessary human resources needed to ensure a smooth business operation. Until recently, all operations, including the creation of content, optimization of the website, designing and implementing content funnels, and maintenance of the platform itself have been carried out by the owner himself. The lack of human resources for the business can also be linked to the financial limitations of the business. Since the business continues to run on bootstrap capital, it retains a strict budget that does not allow the opportunity to hire external services or permanent employees. To compensate for the missing resources, AI tools such as Jasper AI and SurferSEO were purchased, allowing the operations to run more efficiently, thereby also mitigating the need for human resources that may otherwise not be feasible given the current budget constraints.

8.5 CONTENT CREATION

Lastly, one of the most consistent challenges faced since the inception of Thinkin Greener was the need to constantly create ranking content that would allow the influx of traffic, as well as create a funnel through which users would redirect themselves to purchasing the products or services featured on the website. Over the past 1.5 years, over 150 articles have been successfully published. Tools for making the entire content planning, creation, and evaluation

process more seamless have been purchased and implemented successfully, which have allowed us to create the funnel needed for converting incoming traffic to successful sales. As consumer retention also needs to be addressed through content, opt-ins, and voluntary quizzes are currently being designed to help engage consumers and thereby create an email list that can be used to direct offers and notifications for newer content.

CHAPTER 9: ETHICAL CONCERNS

9.1 PROMOTION OF COUNTERFEIT PRODUCTS

One of the biggest obstacles when selling or promoting products is becoming a victim of piracy. The classical text of Nill and Shultz (1996), highlighted how every successful consumer brand has been subject to counterfeit products. The severity of the issue was highlighted by Chaudhry and Walsh in 1996, who determined that the total annual loss to all brands due to counterfeit products amounts to approximately 200 billion US dollars (at that time).

Keeping this into consideration, Thinkin Greener only promotes products that have been officially posted by the manufacturers themselves. The manufacturers can be verified directly on Amazon through the description page of any product, which Thinkin Greener also uses to ensure that the product has been listed directly from the source and is not counterfeit. Additionally, Thinkin Greener only promotes products rated positively by a minimum of 100 consumers (which can also be verified directly on the product's description page) to ensure the product is not of substandard quality.

9.2 CONSUMER DATA

Collection and usage of consumer data have also been taken into strict consideration, and the platform transparently highlights all aspects of consumer data in the privacy policy posted publicly on <https://www.thinkingreener.com/wpautoterms/privacy-policy/>. The policy broadly discusses the type of data collected by Thinkin Greener (including via connected applications), data security, and affiliation of the platform with third-party partners.

9.2.1 Data collection

Thinkin Greener uses opt-in forms to collect users' information. These opt-in forms are completely optional and can be closed directly on the browser if the user does not wish to provide the details. This includes the name and email address of the user. The opt-in form is used to send users updates on upcoming content, as well as discounts and promotions on products from the platform's partner(s). Additionally, third-party applications, such as Google Analytics, collect data including the users' time of accessing the website, the device type used, and the location from where the website was accessed. Although the data is used to generate a geographic overview for incoming traffic, Google does not disclose sensitive data such as the Internet Protocol (IP) address of the user to Thinkin Greener or any outside party. Finally, Thinkin Greener also uses cookies to handle session data. Cookies are small text files containing information about the user's interaction with Thinkin Greener, including the page session, as well as the time accessed. This is used purely for optimization of the user's experience, and when the same user accesses the platform, the cookie can be used to load the cached version of the page to the point where the user left off, thereby reducing page load times. The user may disallow the cookies from the website at any time, and the cookie for that specific user will automatically be permanently removed.

9.2.2 Data security

As mentioned previously in *section 4.3.3: Website Security*, the entire platform is connected to a Secure Socket Layer (SSL) certificate. The certificate encrypts all traffic data entering the platform, as well as any interactive network calls to ensure minimum risk of consumer data leaks. Additionally, the website has also been protected via a security system from Wordfence, which prevents access to the platform from any known suspicious locations,

and constantly updates its database to find new threats and attack points, thereby ensuring user's data confidentiality throughout the session.

9.9.3 Affiliations with partners

To ensure complete transparency with the content consumers, Thinkin Greener has declared its partnership with third-party vendors. The platform has also made a full disclosure on situations that may adversely affect consumers but are out of the platform's control such as a possible substandard product delivered to the consumer by the merchant despite sourcing for the best product in the market. This section is an ethical obligation on Thinkin Greener's part to inform the customer of possible negative outcomes instigated by a merchant beyond the platform's control beforehand.

9.3 PIRACY OF CONTENT

Thinkin Greener only strives to produce original content for its consumers. This is not only important from an ethical standpoint for the consumers but is also important to prevent legal action by other platforms working online. There are currently three types of content being served to Thinkin Greener's users

9.3.1 Logos and graphics

All logos, icons, and graphics created for the platform are completely original and created using Adobe Spark. Any resemblance towards other logos or graphics is purely co-incidental and was in no way used to create any graphics for the platform.

9.3.2 Textual content

All textual content created on Thinkin Greener is completely original and generated by Jasper.ai, an AI-powered virtual assistant. Certain information about products and general facts

about certain topics have been sourced, in which case the source of information has been referenced. However, even in such cases no content has been duplicated and all written content has been vetted for originality by SurferSEO (please refer to *table 4.6: Content optimization tools and their pricing* for more information on Jasper.ai and SurferSEO).

9.3.3 Images and videos

Most images posted on the platform are from royalty-free sources. No image has been illegally posted on the platform. The platform has sought permission for images that have not been gathered from royalty-free sources, and for such cases, the source has been properly mentioned underneath as a caption of the image. Finally, all videos posted on Thinkin Greener have been legally sourced from YouTube and embedded via the officially provided embedded URL to comply with YouTube's usage compliance. No video has been illegally processed, cropped, re-uploaded, or downloaded, ensuring compliance with all content copyright rules.

CONCLUSION

With the increase in the amount of pollution across the globe, the need for transitioning to sustainable alternatives continues to grow among the masses (PBL Netherlands Environmental Assessment Agency, 2020). However, the stereotypical representation of sustainability as a premium living standard has made it difficult for the average consumer to switch to a more sustainable lifestyle. Thinkin Greener was created as a platform to serve a market segment that wishes to transition to eco-friendly alternatives but is unable to afford premium products such as solar systems and electric vehicles. As an all-in-one guide for affordable, sustainable products, Thinkin Greener has successfully generated approximately 1000 US Dollars in sales for its affiliate partners Amazon.com and GreenGeeks.com among the audience from the United States, United Kingdom, and Canada, and is now transitioning towards the Pakistani markets to help create greater awareness on sustainability among the general public. The business is fully functional online at <https://www.thinkingreener.com> and plans to establish further partnerships with sustainable product vendors as well as environmental organizations in the country to help create a network that not only attracts potential customers but also affiliates within Pakistan for further marketing opportunities targeted towards the average consumer, thus allowing to fulfill the purpose of Thinkin Greener as a platform that helps masses achieve a sustainable lifestyle through affordable means.

APPENDIX A: ANALYTICS DATA

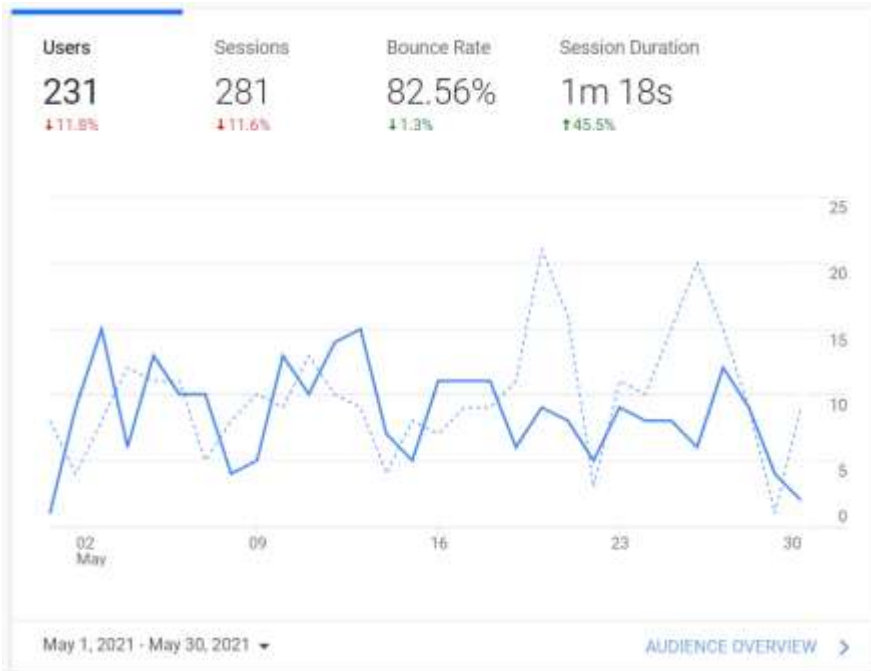
Figure A1: Traffic regions since November 2020



Figure A2: Search console impressions for February till April-21



Figure A3: Traffic for May 2021



APPENDIX B: SALES DATA

Figure B1: Top 10 sold items, November 2021 till January 2022

Ordered Items			Earnings			Link Type Performance		
New: Group By: None								
Product Title	Product Link Clicks	Product Link Conversion	Ordered Through Product Links	All Other Items Ordered	Total Items Ordered			
1 Hammermill Printer Paper, Great White 100% Recycled Pap...	19	47.57%	9	0	9			
2 Bloomin Seeds N' Greetings Cards - Handmade Seed Paper <...	-	-	3	0	3			
3 Peace on Earth Traditional Christmas Garland and Berries H...	-	-	0	2	2			
4 HP Printer Paper 8.5 x 11 Paper 50% Recycled Paper 1 R...	7	14.29%	1	0	1			
5 Miracle-Gro Indoor Plant Food Spikes, includes 24 Spikes - C...	-	-	0	1	1			
6 DEFEET Men's Acerator Banana Bike Sock, Black, Large	-	-	0	1	1			
7 Orgain Organic Kids Protein Nutritional Shake, Strawberry - ...	-	-	0	1	1			
8 Nordic Naturals Ultimate Omega Xtra Liquid, Lemon Flavor ...	-	-	0	1	1			
9 Hammermill Printer Paper, Great White 100% Recycled Pap...	-	-	1	0	1			
10 OCUSOFT Hypochlor Hypochlorous Acid Solution Spray 0.0...	-	-	0	1	1			

APPENDIX C: MISCELLANEOUS

Figure C1: USD rate: August 2021. Courtesy: Bing.com



Figure C2: USD rate: February 2022. Courtesy: Bing.com



Figure C3: 2FA authentication for Thinkin Greener on login

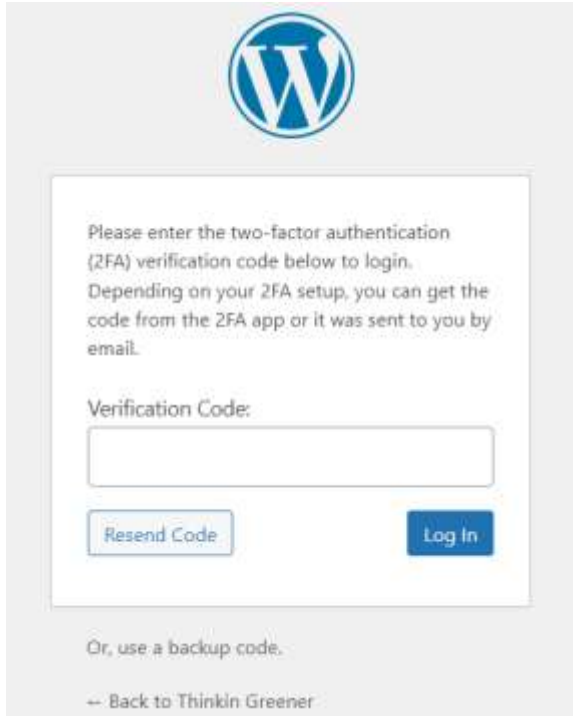


Figure C4: Modern theme design for Thinkin Greener from Q1 2022.

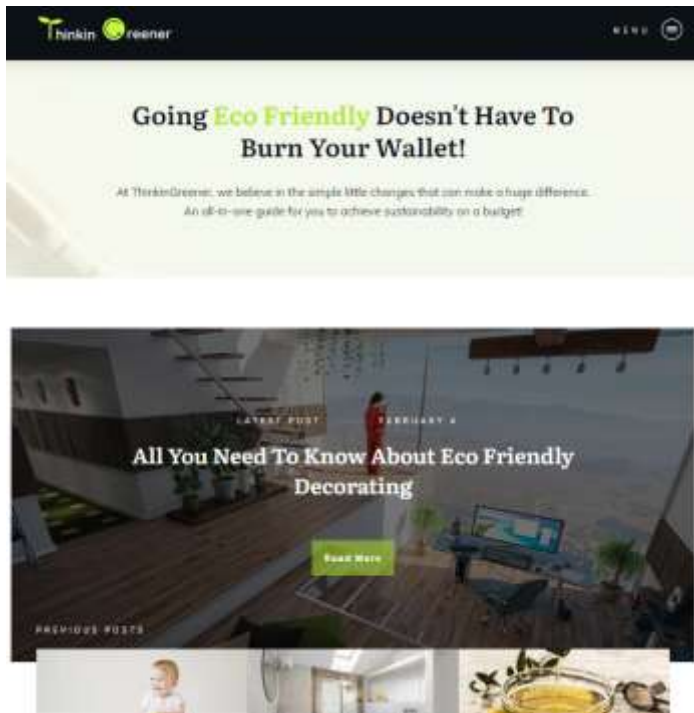




Figure C5: Greengeeks invoice, 2021

GreenGeeks WEB HOSTING		GreenGeeks LLC 3411 Silverside Rd Tatnall Building #104 Wilmington, DE 19810 USA Tax ID: 85-3680919	
Invoice #2658055			
Invoice Date: 2021-08-24			
Due Date: 2021-09-07			
Invoiced To			
Thinkin' Greener			
ATTN: Muhammad Hamza			
43/B Block A State Life Housing Society			
Lahore, Punjab, 54000			
Pakistan			
Description		Total	
EcoSite Lite (EUROPE) - thinkingreener.com (2021-09-07 - 2022-09-06)		\$131.40 USD	
ID Protect - thinkingreener.com (2021-09-07 - 2022-09-06)		\$9.95 USD	
Domain Renewal - thinkingreener.com - 1 Year/s (2021-09-07 - 2022-09-06) + DNS Management		\$13.95 USD	
Sub Total		\$155.30 USD	
Credit		\$0.00 USD	
Total		\$155.30 USD	
Transactions			
Transaction Date	Gateway	Transaction ID	Amount

Figure C6: Invoice for Jasper.ai, January 2022

Receipt 

Invoice number DED3C174-0009
 Receipt number 2031-3185
 Date paid January 29, 2022
 Payment method  - 0399


Jasper (Formerly Jarvis)
 200 E. 6th Street
 Suite 310
 Austin, Texas 78701
 United States
 hey@jasper.ai

Bill to
 ThinkinGreener
 muhammadhamza18@gmail.co
 m

\$119.00 paid on January 29, 2022

Description	Qty	Unit price	Amount
Boss Mode	1		
First 1 (Jan 29 – Feb 28, 2022)	1	\$0.00	\$0.00
Flat fee for first 1 (Jan 29 – Feb 28, 2022)	0		\$119.00
Subtotal			\$119.00
Total			\$119.00
Amount paid			\$119.00

Figure C7: ThriveSuite invoice for 2022

 **Thrive Themes**

January 27th 2022
 Invoice 000003185

Billing info
 Muhammad Hamza
 Punjab, 54000
 Pakistan

Total (USD)
\$228.00
 Paid via credit card

Description	Total
Thrive Suite Yearly <small>Annual payment (\$228.00)</small>	\$228.00
Annual payments, starting Fri 27th Jan '23	\$228.00
Total:	\$228.00

Figure C8: Invoice for SurferSEO, January 2022

Faktura nr / Invoice No.: F 4586/1/2022

Data wystawienia Invoice Date:	2022-01-22	Data sprzedaży Sale date:	2022-01-22
Termin płatności Payment Due By:	2022-01-29	Metoda płatności Payment Method:	karta płatnicza / card

Sprzedawca (Seller)
SURFER Sp. z o. o.
pl. Solny 14/3
50-062 Wrocław, Polska
NIP/VAT UE: PL8971860264

Nabywca (Buyer)
Muhammad Hamza
43/B Block A State Life Housing Society
54000 Lahore, Punjab
Pakistan

Lp No	Nazwa Description	Jedn. Unit	Ilość Qty	Cena brutto Unit price	Stawka Tax Rate	Wartość netto Total Excl. Tax	Wartość brutto Total Incl. Tax
1	Surfer	unit	1	119,00	nie podl.	119,00	119,00

Stawka VAT Tax Rate	Wartość netto Total Excl. Tax	Kwota VAT Tax	Wartość brutto Total Incl. Tax
nie podl. PLN	475,44	0,00	475,44
Razem / Total	475,44	0,00	475,44

Zapłacono / Already Paid	119,00 USD
Do zapłaty / Total Due	0,00 USD
Razem / Total	119,00 USD
	Słownie / In words sto dziewiętnaście dolarów 0/100

Odwrotne obciążenie / Reverse charge

1 USD = 3,9953 PLN
Kurs z dnia: 2022-01-21
Numer tabeli: 014/A/NBP/2022

Figure C9: Proposed workflow for the affiliate program

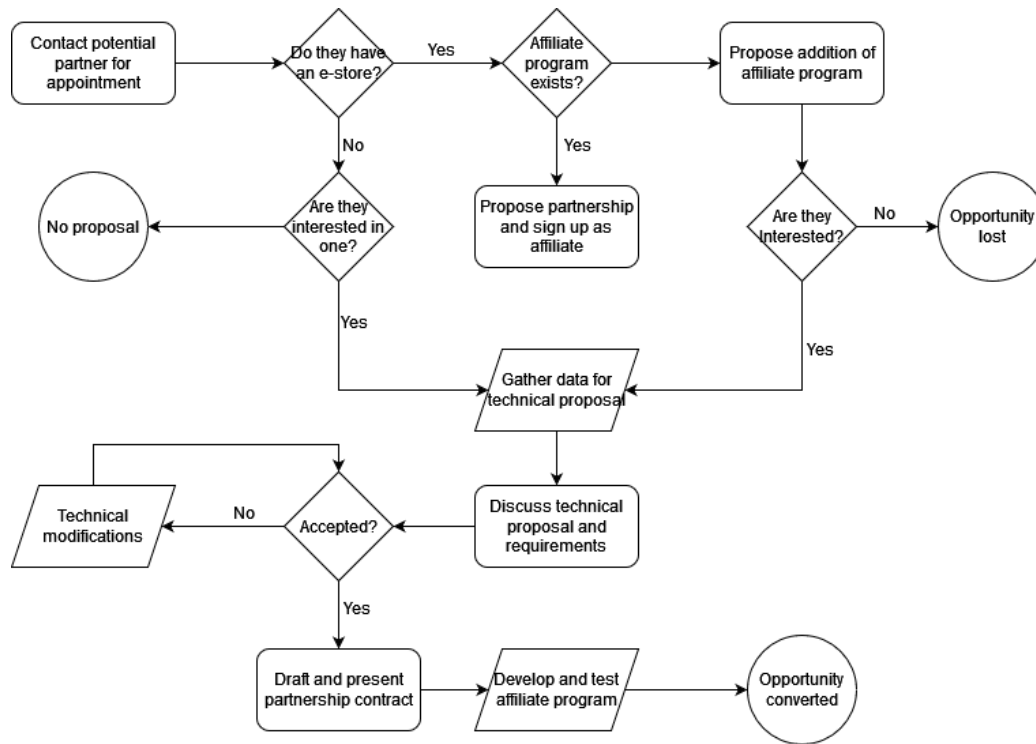
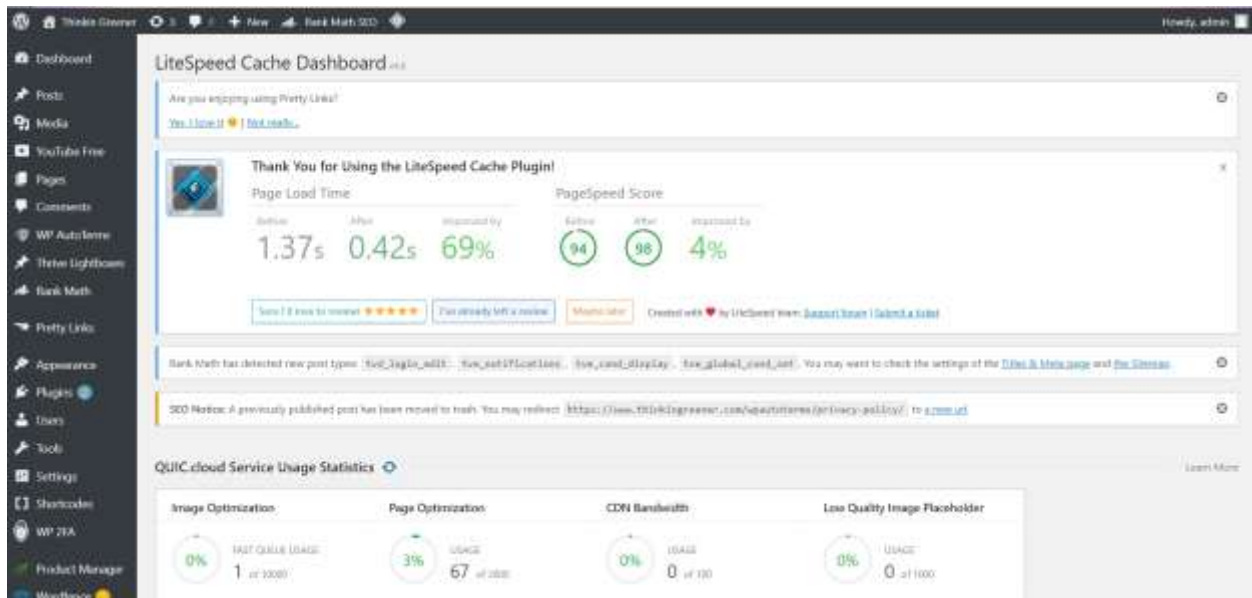


Figure C10: Overview of the Litespeed dashboard on Thinkin Greener’s administration panel



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